ING. O. FIORENTINI S.R.L.
INDUSTRIAL CLEANING MACHINES

SCRUBBING SWEEPING MACHINE
MOD. I115SS GAS

USER MANUAL

Congratulations for your choice!

FIORENTINI S.r.l. *thanking you for the preference to our product, would like to remind you that FIORENTINI's S.r.l production covers manufacture and marketing of industrial cleaning machines and is currently a leading company in this sector.*

Our tradition and competence guarantee technical quality of your choice; actually all our products are being built first quality materials through criteria that can give reliability, solidity and functionality satisfying every kind of customers. FIORENTINI has recently obtained the quality system certificate conforming to the requirements of UNI EN ISO 9001:2000.

We wish therefore inviting you to contact us, unhesitatingly, for every kind of request, as technical or commercial; we'll be pleased to be at your disposal for any information you may need.

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1. GENERAL INFORMATION

1.1. SYMBOLS

	This symbol is used to get the operator's attention on procedures or precautions to be followed in order to avoid damages to users or to the support
	This symbol is used to get the operator's attention on general information.

1.2. PREMISE

***FIORENTINI S. r. l.** is the only owner of this manual.*
The reproduction of all or part of the manual or the transmission to third parties with mechanic or electronic devices are vorbidden without a written manufacturer's authorization. This manual is supplied to the customers in one original copy when differently specified during the order.

This manual is supplied to the customer with the machine and it must be kept with it even when the machine has to be transferred.
Please, keep the manual in a safe place and for all the machine lifetime. Purchaser is responsible for showing the manual to qualified people. In case of loss ask for a duplicate to FIORENTINI Co..

FIORENTINI S.r.l. is not responsible for any kind of damages caused by people or things due to the non-observance of the instructions of this manual.

FIORENTINI reserves the right to add at any time and without notice all the technical and commercial changes considered useful for the customer. Therefore data and information in this manual can be updated.

1.3. MANUAL CONSULTING

This manual deals exhaustively with all arguments that are necessari for an easy and safe use of the machine as it is recommended by European Directives on product safety.

Therefore we suggest to all authorized operators to read carefully this manual contacting FIORENTINI S.r.l. for any explanation. The manual has to be used every time the operator forgets a procedure or when new operators have to be trained.

For publishing reasons, pictures and drawings can look different from the reality but without arising doubts.

Special symbols and **bold type** and/or *sloping* get the attention of the reader on remarkable information in particularl for safety.
The revision index is written on the left at the bottom of every page. The list of those pages that have been updated has to be found at the end of the manual.

1.4. WARRANTY

Warranty conditions are stated as below when not differently specified in the order confirmation.

WARRANTY OBJECT

The machine has been designed and built for a long-lasting use without relevant problems. Anyway, if problems arise during the warranty period, FIORENTINI S.r.l. is engaged to repair or substitute for free those parts that are broken or damaged by defective materials, working defects or imperfect assembly.
Warranty is not given for parts whose early breaking or wear and tear are due to:

Non-respect of instructions included in this manual;
- Breaking and/or changes made up without FIORENTINI's approval;
- Not-use of genuine spare parts;

- Interventions made up by unauthorised personnel;
- Missing maintenance;
- Natural calamities.

FIORENTINI S.r.l., its purchasers and its suppliers have the same warranty for the electric and expendable materials that are sold by external suppliers.

WARRANTY CONDITIONS

The warranty is granted for 24 months since the machine delivery date. This is a single warranty term and it cannot be extended.

EXCEPTIONS

Expandable materials like brushes, squeegee blades and materials whose lifetime cannot be predetermined are not under warranty.

APPLICATION MODALITY

Defective components must be sent back to FIORENTINI S.r.l. in order to establish the anomalies causes and apply therefore the warranty. Repair and replacement under warranty will be done in FIORENTINI's workshop, by third parties or in loco. In case of repair or replacement in loco, energy sources and the use of particular equipment have to be paid by the customer himself.

INTERVENTION DEMANDS

Intervention demands must be sent to FIORENTINI Service Dpt. only after a careful analysis of the problem and its causes. Following information have to be given to FIORENTINI's agent:

- Serial number you get it from the silver label sticked on the machine (§ 2.1.);
- Code and position of the component taken from the spare parts list (§ 7.2.);
- A detailed description of the problem and its causes.

The components considered under warranty are delivered ex works; those ones being substituted belong to FIORENTINI Co..

GOODS TO BE RETURNED

In case of goods to be returned for warranty replacement, it is necessary to have a written acceptance from FIORENTINI technical department before sending them.
All defective parts must be carefully packed in order to avoid further damages during transport.
Goods must be shipped ex-warehouse and followed by :

- **serial number of the equipment where they were installed on;**
- **item code of the defective part;**
- **detailed description of the defect and of the condictions where it happened.**

In case of defective electric or electronic goods,
please return them separately from other materials,
in order to help us in dividing dangerous wastegoods
and recicle the (RAEE) as DER 2002/96/CEE LOW.

The machine warranty is no more available in case of the loss of the silver label.

1.5. CONFORMITY DECLARATION

The conformity declaration is released with the machine and the user manual.

DICHIARAZIONE CE DI CONFORMITA'

ING. O. FIORENTINI s.r.l.
Loc. Rombola

50030 PIANCALDOLI (FI) ITALIA

DICHIARIAMO SOTTO LA NOSTRA RESPONSABILITA' CHE LA MACCHINA

Marca FIORENTINI
Tipo
N° serie
Anno di costruzione 2005

CE

RISULTA IN CONFORMITA'
con quanto previsto dalle seguenti direttive e normative armonizzate comunitarie:

DIRETTIVA COMUNITARIA

DIRETTIVA MACCHINE

98/37/CEE

DIRETTIVA BASSA TENSIONE

73/23/CEE

DIRETTIVA COMPATIBILITA' ELETTROMAGNETICA

89/336/CEE

Ing. O. Fiorentini S.r.l.
Il titolare
Ing. O. Fiorentini

Piancaldoli

Luogo e data

Firma

2. MACHINE FEATURES AND TECHNICAL DATA

2.1. IDENTIFYING THE MACHINE

A silver label is sticked on the protection case of the steering column and clearly shows the data referring to the “CE” marking.

PICTURE Nr. 2.1

The label has never to be removed and should always be kept readable. In case of damage t is necessary to ask for a duplicate. The autoscrubber machine cannot be sold without the label.

2.2. DESCRIPTION AND COMPONENTS

This machine has been designed to clean the floor in three steps: floor sweeping, floor washing and water suction. It is available in four versions: battery, gasoil, petrol or GPL.

The battery version is built with the following components:

- a electric engine, which is connected to two hydraulic pumps: one variable delivery pump and one fixed delivery pump;
- a hydraulic rear driving wheel which is connected to the hydraulic system and to the variable delivery pump. The pump is operated by the gas pedal;
- two side brushes;
- one central brush;
- a dust suction system;
- a recovery tank;
- three washing brushes behind the central brush;
- one squeegee;
- one solution tank made of ABS plastic;
- one recovery tank made of ABS plastic with flexible pipes for water suction and discharge;

- a series of batteries (for the battery version), a gasoil or petrol or GPL engine (for the version with engine);
- steering wheel group;
- operator's seat.

The two sweeping brushes collect the dust and the central brush, that rotates in the opposite direction of the machine, put it into the recovery tank. A suction system has to put fine dust, that the sweeping brushes cannot collect, into the recovery tank. Both the sweeping brushes and the washing ones can operate at the same time, while the squeegee – in deep contact with the floor - intake water into the recovery tank.

	Please do not forget to start the filter shaker motor for the dust filter cleaning. This operation has to be done with open bucket and close to the discharge area.

Thanks to the dashboard the operator can control all the machine functions, which are listed below:

- operate the side brushes and the central one of the sweeping group;
- operate the suction of the sweeping group;
- lift or lower the recovery tank;
- open or close the flap;
- operate the filter shaker;
- operate the parking brake lever;
- lift or lower the washing brushes plate;
- move on side the washing brushes plate;
- operate the washing brushes;
- control the detergent quantity;
- start the suction motor;
- lift or lower the squeegee;
- select forward or riverse gear;
- start or stop the machine;
- switch the flashing light on or off;
- switch the lights on or off.

The machine frame is made of zinc-plated or stainless steel in order to avoid oxidation which could compromise the machine reliability.

FIORENTINI Co., taking the new CE safety rules into consideration, manufactures the machine following the CE directives about safety and health. The materials high quality, the high technology and FIORENTINI's experience guarantee the performance and the reliability of this machine .
Each machine is tested during the manufacturing process and the final check is done before the machine is shipped out.

2.3. TECHNICAL DESCRIPTION

DATI TECNICI – SPECIFICATIONS – CARACTERISTIQUES TECHNIQUES

Alimentazione – Voltage – Alimentation	**GAS (GPL)**
Sistema di trazione – Drive system - Systeme de traction	**idraulica posteriore**
Larghezza di lavaggio – Scrubbing width – Largeur de nettoyage	**1150 mm**
Larghezza squeegee – squeegee width – Largeur suceur	**1350 mm**
N° spazzole – Brushes no. – Nr. des brosses	**3 x Ø 380 mm**
Area pulita per ora – Working capacity up to – Rendement jusqu'à	**8050 mq/h**
Serbatoio soluzione – Solution tank – Cuve solution	**220 litri**
Serbatoio di recupero – Recovery tank – Cuve recuperation	**210 litri**
Spazzola centrale- Main broom – Brosse centrale	**850 mm x Ø 300 mm**
Spazzole laterali anteriori – Front side brushes – brosses laterales devant	**2 x Ø 400 mm**
Superficie filtrante- filtering surface – surface filtrant	**6 mq**
Capacità contenitori rifiuti- dirty container capacity – capacité conteneur dechets	**210 lt**
Ruota posteriore – rear wheel – roue arriere	**460 mm.**
Ruote anteriori – front wheels – roue avant	**460 mm.**
Velocità marcia avanti – Forward speed – Vitesse en marche avant	**7 km/h**
Velocità marcia indietro – Backward speed – Vitesse en marche arriére	**7 km/h**
Guida – Drive - Conduite	**Man on board**
Peso in ordine di marcia senza carburante – Weight of the machine without GPL	**1200 kg.**
Pendenza max. superabile in trasferimento – Highest slope – Pente superable	**13%**
Pendenza max. superabile in lavoro – Highest slope during work	**10 %**
Pendenza max. per una inversione a U – Highest speed for a U-turn	**5% (3km/h)**
Rumorosità – noise level - Bruit	**< 78db (A)**

CARATTERISTICHE TECNICHE MOTORI – TECNICAL CHARACTERISTICS – CARACTERISTIQUES TECHNIQUE

Motore trazione – Traction motor – Moteur des tracion	**BRIGGS & STRATTON DM 950P MG LPG**
Cylinders	**3**
Displacement	**952 cc**
HP	**31 HP – 23 kW**
Suction engine	**2x36V 850W**
Motore spazzole – Brush motor – Moteur des brosses	**3 x 36 V 900 W**
Motore aspirazione – Suction motor – Moteur d'aspiration	**1 x 36 V 350 W 3500 rpm**

DIMENSIONI – DIMENSIONS

Lunghezza – Length – Longueur	**2100 mm**
Larghezza senza carter spazzole- Width without brushes carters – Largeur sans carter brosses	**1200 mm**
Larghezza con carter spazzola - Width with brushes carters Largeur avec carter brosses	**1230 mm**
Altezza con roll bar – Height with roll bar – Hauteur avec roll bar	**1850 mm**

PERFORMANCE

Steering wheel	**Hydraulic**
Turning radius	**1900 mm.**
Sweeping side brushes lifting	**Electric**
Sweeping central brush lifting	**Hydraulic**
Washing brushes lifting	**Electric**
Squeegee lifting	**Electric**
Washing plate translation	**Electric**
Service brake	**Hydraulic (pedal)**
Parking brake	**Mechanical (lever)**

The above mentioned characteristics are not binding for the manufacturer; they can be changed without any notice . ING.O.FIORENTINI Co. is always at disposal for any information (par.7.1.).

MEASUREMENT UNITS CONVERSION			
Lenght	1 inch = 1” = 25,4 mm	**Power**	1 kW = 1,36 CV = 1,34 BHP
Temperature	T (K) = t (°C) + 273 / t (°F) = 1,8 t (°C) + 32	**Pressure**	1 bar =100 kPa = 14,5 psi

3. SAFETY

3.1. RIGHT USE OF THE MACHINE

This machine can sweep and wash at the same time. It has been designed both for the industrial and outside cleaning. The engine version can be used on slopes not higher than 15% while the battery version on slopes not higher than 10%. The machine can reverse on sloping surfaces not higher than 5% for the engine version (3 km/h speed) and 3% for the battery version (2km/h speed).

3.2. WRONG USE OF THE MACHINE

- ***The machine cannot be driven by non-authorized personnel;***
- ***The machine cannot wash sloping surfaces whose gradient is higher than 15% for the engine version and 10% for the battery version or surfaces with holes;***
- ***The machine cannot be driven on sloping surfaces higher than 5% for the engine version (3 km/h speed) and higher than 3% for the battery version (2 km/h speed).***
- ***The machine cannot be used in places with dangerous substances and in particular with explosive atmospheres or with a bad microclimate;***
- ***The machine cannot clean surfaces with inflammable products;***
- ***The machine cannot be used as a means of transport for people or other means of transport;***
- ***The protection devices of the machine cannot be modified or tampered;***
- ***Batteries must be recharged in a fanned room;***
- ***The operator have always to respect safety rules;***
- ***The engine version of the machine with internal combustion cannot be driven in not authorized places;***
- ***The operator cannot use equipments or devices that can create problems to the machine working;***
- ***The machine components cannot be modified without FIORENTINI's authorization;***
- ***The operator cannot use acids that can damage the machine;***
- ***The operator has always to respect the rules written in the user manual.***

Please read carefully and do not cover the labels sticked on the machine. FIORENTINI S.r.l. is not responsible for a wrong use of the machine (see § 3.2.)

3.3. SUGGESTED EQUIPMENT

In order to use the machine in a proper way, we suggest to use the FIORENTINI's equipment and original spare parts.
FIORENTINI S.r.l. Technical Dept. is always at your disposal to design components or parts for a particular use of machine as requested by the customer.

3.4. OPERATOR'S QUALIFY

The scheme below sumarizes the operator qualify requested for each kind of operation.

OPERATION	OPERATOR'S QUALIFY
Driving/control of the machine	Trained operator
Installation/ disinstallation	Fiorentini technician
Mechanical parts maintenance	Fiorentini technician
Electric parts maintenance	Fiorentini technician
Cleaning maintenance	Trained operator
Dismantling and demolition	Fiorentini technician

FIORENTINI S.r.l. suggests to train the operator before using the machine. The operator also must be trained about safety rules and carefully read this manual.

FIORENTINI S.r.l. is not responsible for any possible damage to people and/or things caused by the non-observance of the instructions dealt within this manual.

3.5. SAFETY AND WARNING DEVICES

- ***It is absolutely forbidden to tamper or disconnect safety and warning devices while the machine is working;***
- ***It is important to check periodically safety and warning devices (see § 5.1.).***

Side brushes protection	I115SS is equipped with three nylon brushes that rotate while the machine is working. A steel case on each side brush avoid to reach dangerous areas. These cases can be only willingly removed.
Central brush protection	I115SS is equipped with a central brush that rotates while the machine is working. A steel case avoid to reach dangerous areas. These cases can be only willingly removed.
Warning device	I115SS is equipped with several warning devices: ➢ One acustic warning device like a claxon. It has to warn people who are near the machine while its operating; ➢ One intermittent bleeper to warn people while the machine is reversing; ➢ Two flashing yellow lights to signal the machine operating.con luci gialle lampeggianti per la segnalazione di macchina in funzione. ➢ Headlights to work in places with few light.

3.6 SAFETY SYSTEMS

The machine is equipped with the following safety systems.

- **Socket** (picture 4.5), the same socket used for the battery charger. In case of emergency, this socket must be taken away from the plug by means of its handle.
  The operator must be trained about safety rules. Do never restore this safety system before the problem has been sorted out. If it is necessary ask for the technician help.
- **Insufficient battery charge:** the electronic card, that controls all the machine functions except for the traction, disconnect all these functions when the battery charge is lower than 20%. In this way the batteries' lifetime can be longer.
- **Emergency switch (battery version):** the machine is equipped with an emergency button under the driver's seat. If the operator is not aboard, the machine does not start. Moreover, the machine stops automatically if the operator forgets to switch the machine off. In this way the operator must seats again on the machine, switch the machine off, wait for a few seconds and start the machine again.
- **Ammeter:** the machine is equipped with an ammeter on the dashboard, which controls the washing brushes pressure. The operator has not to overcome the yellow line for a slight cleaning; the green line for a normal cleaning; the red line for a brief cleaning.
- **Safety stopper:** the machine is equipped with red safety stopper under the recovery tank. The operator must use it every time he/she needs to maintain the recovery tank.

Attention: the operator has not to work with the machine with leds always on the red line of the ammeter.

3.8. OTHER DANGERS

FIORENTINI S.r.l. analyzes – starting from the design of the machine - all the dangers that can occur while the machine is operating in order to prevent or at least low the operator's accidents. Thanks to a series of signals on the machine the operator can avoid many risks that can occur.

CRUSHING DANGERS

This kind of danger can occur:

- **during the side brushes regulation;**
- **during the batteries recharge because of the batteries cover fall (battery version);**
- **during the hydraulic oil filling because of the cover batteries fall (battery version);**
- **while checking the filter of the waste tank;**
- **during the squeegee regulation;**
- **while replacing the central brush or the washing brushes;**
- **while emptying the waste tank.**

Whilst regulating the side brushes, the central brush and the central washing brushes the ignition key must be kept away from the dashboard in order to avoid the casual starting of the machine.
Whilst the batteries recharge, the operator must pay attention that any parts of his/her body enter the batteries room.

Special labels sticked on the cartes of the brushes or on the recovery tank prevent dangers to the operator (see § 3.7.).

SQUASHING AND SHEARING

This kind of danger can occur:

- **while emptying the waste tank;**
- **while installing or replacing the batteries.**

While the operator is emptying the waste tank, nobody must be near the machine in order to avoid accidents.
Squashing and shearing danger is highlighted by special labels sticked on the case of the steering column (see § 3.7.).

TURNOVER

This kind of ranger can occur:

- **during the normal operating of the machine when you exceed sloping limits as specified in the manual and you use the machine to clean disconnected surfaces or with holes and high depressions (photo 3.2)**

	• **Do not use the machine to wash sloping surfaces higher than 10% or surfaces with holes or depressions which might compromise the stability of the machine.**

	FIORENTINI is not responsible for accidents occurred to people or things provoked by a wrong use of the machine, i.e. using the machine on surfaces which can compromise its stability. *The purchaser must stick proper labels on the machine to show the operator its right use.*

BURNING DANGER

This kind of danger can occur:

- **during the check up of the oil engine.**

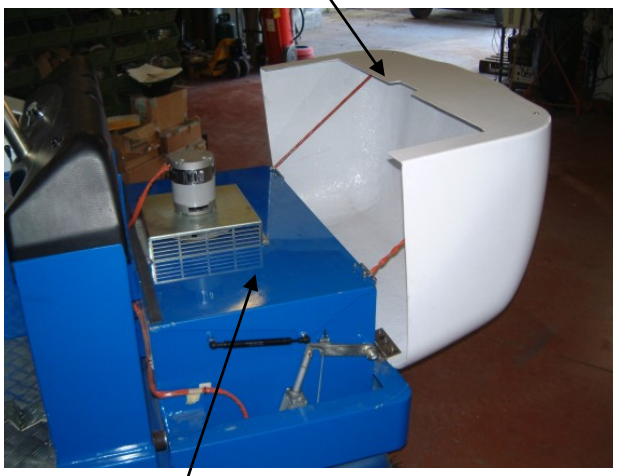
Whilst changing or checking the engine oil make sure that the machine has been switched off a few minutes ago before opening the rear case, in order to avoid to touch hot parts of the machine.

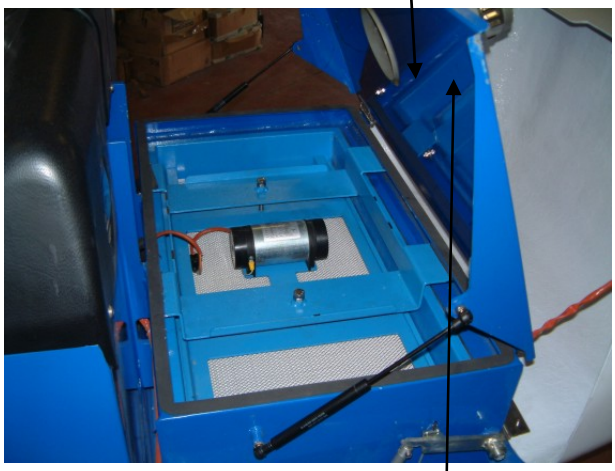
	Special labels sticked on the case of the steering column prevent dangers to the operator (see § 3.7.).

3.9. SAFETY SIGNALS

DANGERS		Dangers' signals are triangular with black pictures on a yellow background
PROHIBITIONS		Prohibitions' signals are round with black pictures and a red stripe

	What is it?	This signal forbids to remove the protection of pieces in movement.
	What to do	During the installation or the maintenance make sure that the ignition key is not in the dashboard before removing the mobile protections. While the machine is operating make sure that all covers are well fixed.





	What is it?	Crushing danger: it can be due to parts in movement of the machine.
	What to do	During the installation or the maintenance make sure that the ignition key is not in the dashboard before removing the mobile protections.

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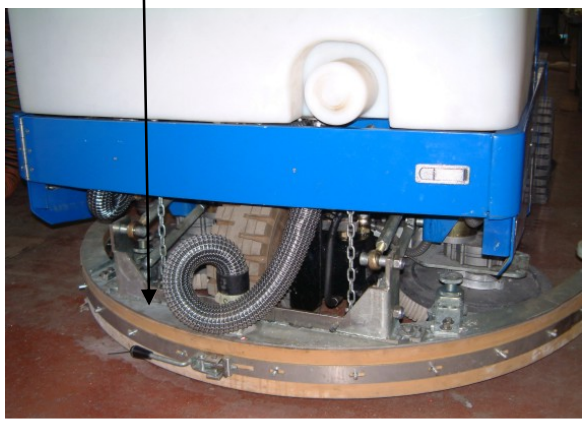
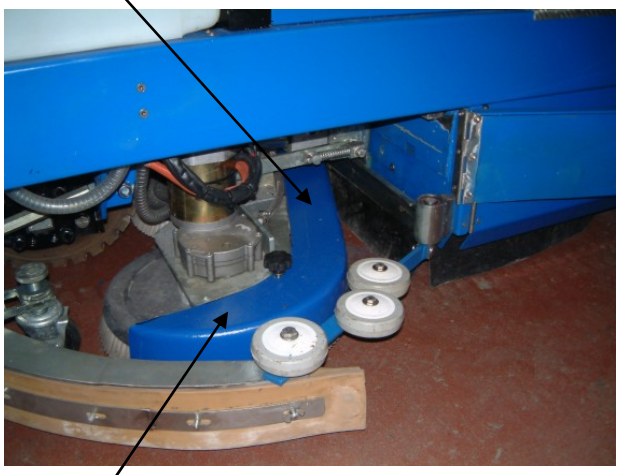


	What is it?	This signal forbids to remove the protection of pieces in movement.
	What to do	During the installation or the maintenance make sure that the ignition key is not in the dashboard before removing the mobile protections. While the machine is operating make sure that all covers are well fixed.



	What is it?	Crushing danger: it can be due to parts in movement of the machine.
	What to do	During the installation or the maintenance make sure that the ignition key is not in the dashboard before removing the mobile protections.

	What is it?	Explosion danger: it may occur while recharging the batteries because of hydrogen spread.
	What to do	During the batteries recharge, please place the machine under a suction chemney or in a ventilated area and keep it away from heat and corrosive substances.

	What is it?	Crushing danger: it can be due to parts in movement of the machine.
	What to do	During the installation or the maintenance make sure that the ignition key is not in the dashboard before removing the mobile protections.

The purchaser must replace danger signals on the machine if they are damaged. It is absolutely forbidden to remove or temper danger signals.

4. STARTING AND USE INSTRUCTIONS

4.1. TRANSPORT AND HANDLING

The machine is delivered to the purchaser in a proper package (see picture 4.1 below). A black arrow on the package indicates the barycentre. This arrow must be in the middle of the elevator or transpallet forks. The package must be carefully handled. Do not place one package on another one. If agrred with the purchaser, the machine can be delivered without package, placed on a pallet and fixed by means of straps.

The purchaser must make sure that the machine has not been damaged during the transport and that all papers are on the machine. Otherwise, the purchaser must immediately contact FIORENTINI in order to sort out the problem.
The purchaser is responsible for the transport of the machine if not differently agreed with FIORENTINI.

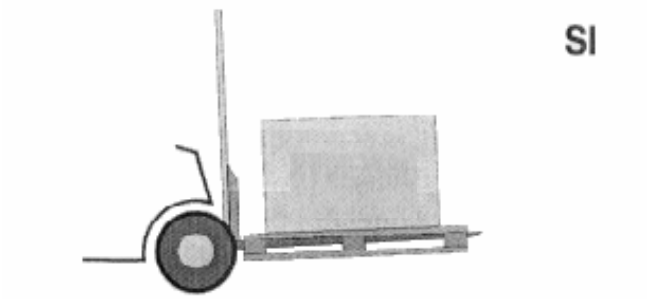
The machine must be handled with proper devices as stated in the scheme below.

PACKAGE	HANDLING EQUIPMENT	PICTURE
Pallet	Fork elevator	Nr. 4.2
None	Fork elevator or crane truck with a two-band-sling and equalizer	Nr. 4.3

The bands used for lifting the machine up must have the same loading capacity as the machine load. Handling operations must be done without causing a loss of stability of the machine. Otherwise, the machine can be damaged or the operator can de in danger.

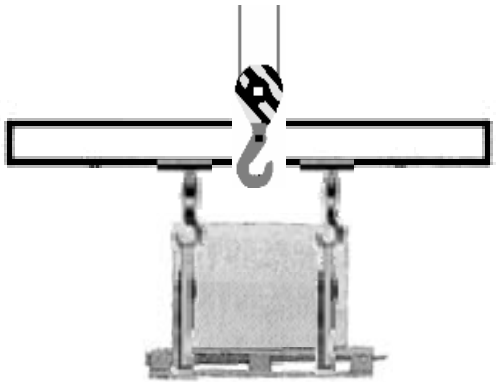
FIORENTINI suggest to use authorized personnel (see § 2.3.) to handle the machine.

LOADING SYSTEM



PICTURE NR. 4.2

SI



PICTURE NR. 4.3

4.2. STORAGE

The machine must be stored in a closed and dry place if not immediately installed in order to keep every part safe.
Relative humidity must be lower than 80% and the storage temperature must be between 3°C ≤ t ≤ + 45 °C**.**

4.3. HOW TO UNPACK THE MACHINE

- Cut the straps paying attention to the back spring;
- Lay the machine on the floor.

4.4 HOW TO HANDLE THE UNPACKED MACHINE

- Check the machine and install the batteries if not already installed;
- For a brief transport of the machine, please disconnect the batteries cables and remove brushes and squeegee; for a longer transport, please use the original package of the machine.

4.5. INSTALLATION

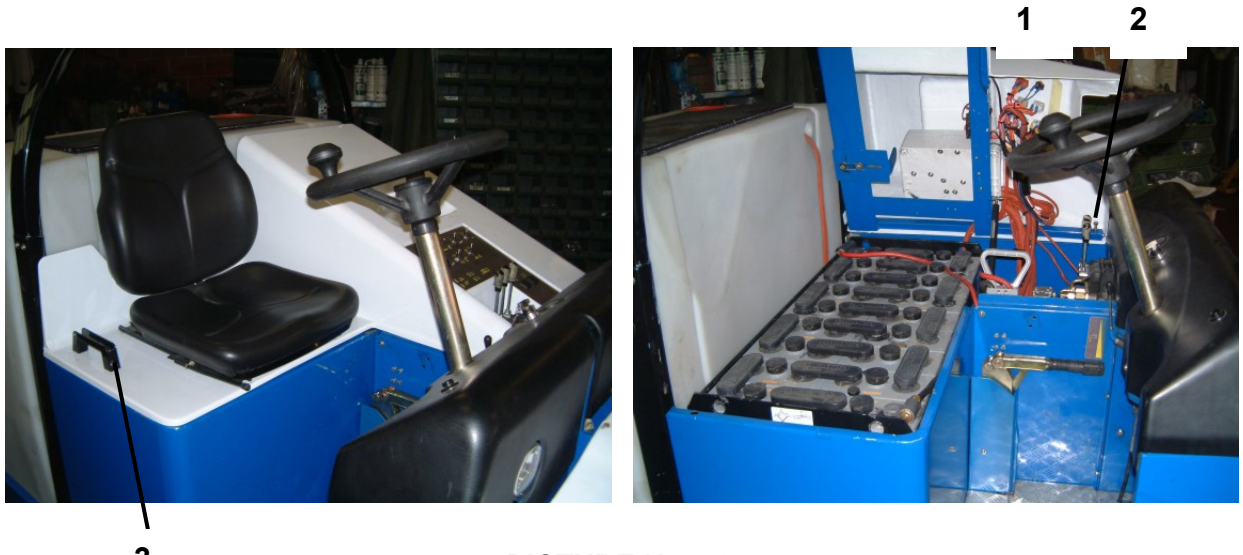
Installation must be carried out by authorized personnel after reading this manual.

4.5.1 BATTERIES INSTALLATION (battery version)

Please follow the instructions below to install the batteries:

- Lift the batteries cover up by means of the handle (see picture nr. 4.3 detail nr. 3);
- Unscrew the piston and release the side support to remove the cover and its support (see picture nr. 4.3 details nr. 1-2);
- Insert from the top the batteries with a proper equipment;
- Clean the surfaces for the connections;
- set the cover and its support up again;
- close the batteries cover.

Important: install the batteries with empty tank.

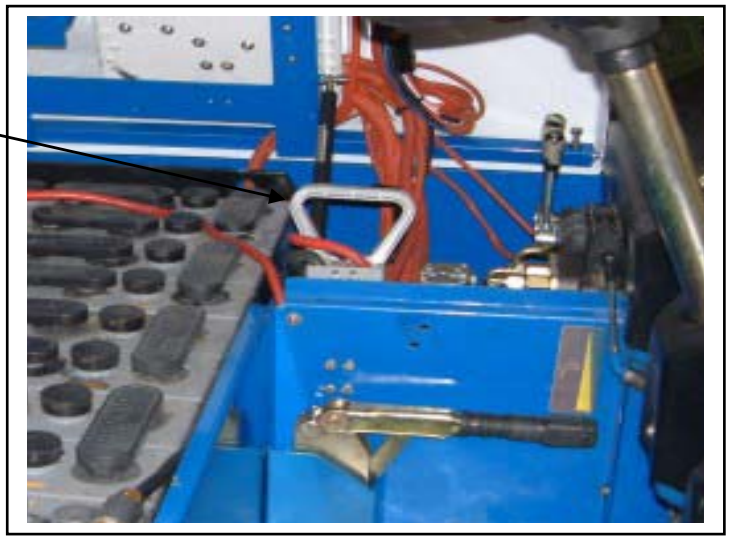


PICTURE Nr. 4.3

4.5.2 BATTERY CHARGER INSTALLATION (battery version)

Batteries must be recharged in a place equipped with a proper suction system of gases spread during this operation. Otherwise, batteries must be charged in a ventilated and dry place far from heat sources and corrosive substances.
Protect the electric network with a delayed switch or with a fuse whose capacity is higher than the battery charger maximum input.
Control the battery outlet polarity.

Connect the battery charger to the machine socket



PICTURE Nr. 4.4

4.5.3 MACHINE STARTING (diesel/petrol version)

The autoscrubber ICM38GAS can be started only when you are completely sure that all the components and devices of the machine are efficient. This is why, well trained FIORENTINI technicians do a strict control while producing the machine and an accurate final test. Anyway, FIORENTINI suggests to do another test before starting the machine. Please see the scheme below.

Test	**Result**	
	√	X
Hydraulic oil level	☐	☐
Engine oil level	☐	☐
Engine cooling water level	☐	☐
Wheels brake	☐	☐
Pilot lights functioning	☐	☐

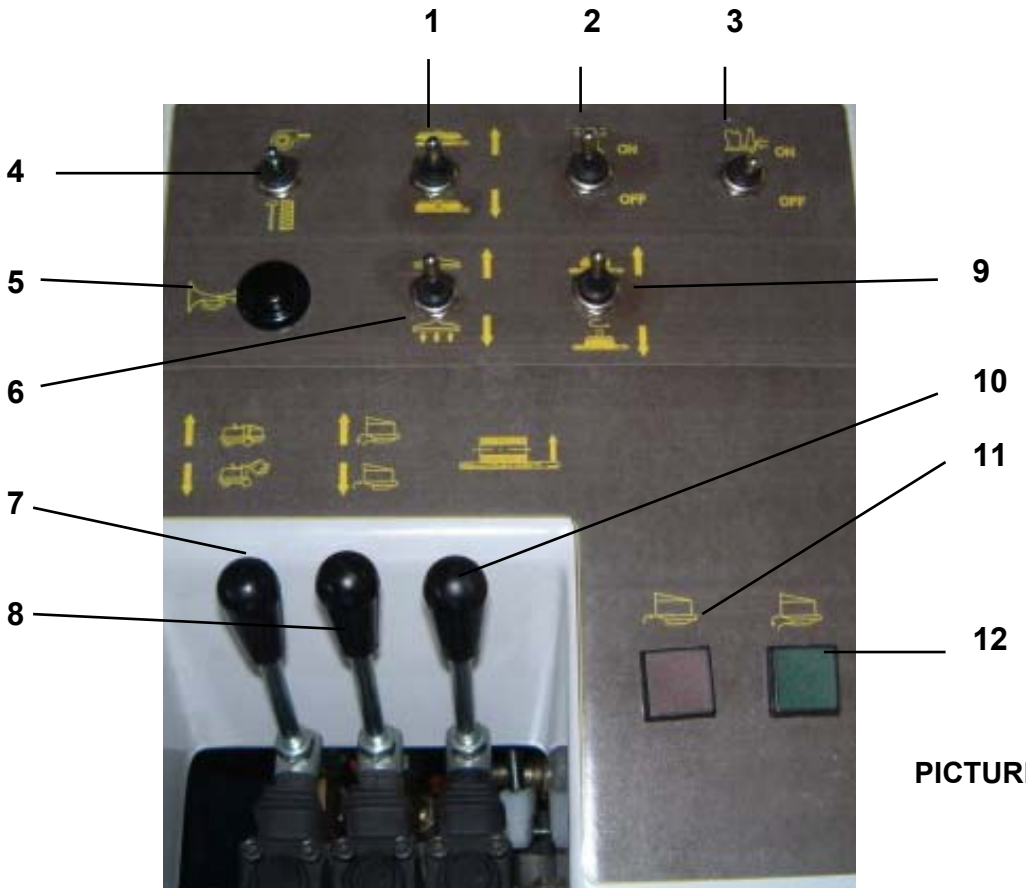
If the result of the test is positive, the machine can be started. On the contrary, please contact immediately FIORENTINI service.

	The test above must be periodically done in order to keep the machine always efficient. The machine must be started by authorized personnel.

4.6. CONTROL DEVICES

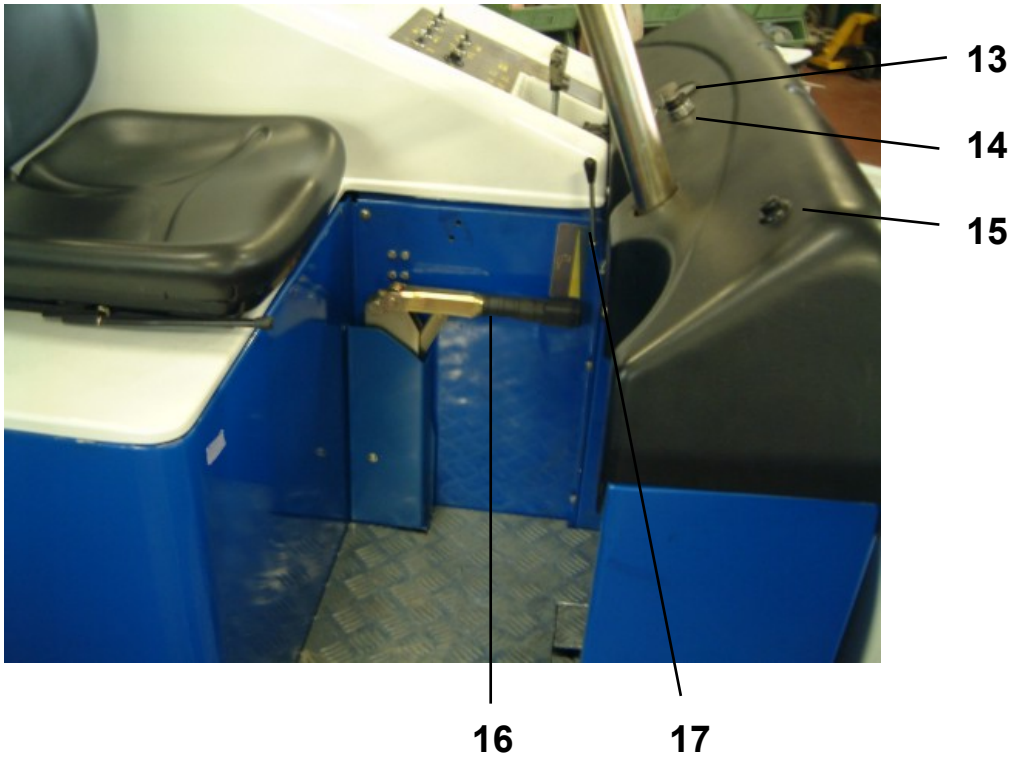
4.6.1. DASHBOARD

The dashboard is made of a series of switches that activate or disactivate all the machine functions. The function of each switch is shown by a picture. Picture 4.5. shows the dashboard of the machine and the switches function is explained in the scheme in the following page.



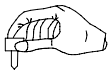
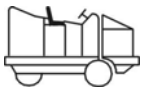
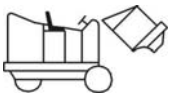
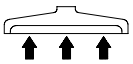
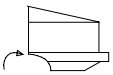
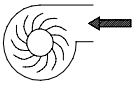
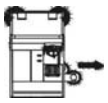
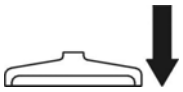
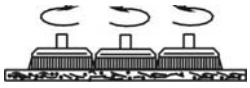
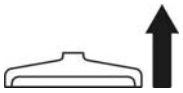
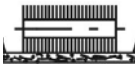
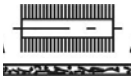
PICTURE Nr. 4.5

1	Washing brushes plate switch
2	Flashing light switch
3	Lights switch
4	Filter shaker switch – waste tank suction switch
5	Horn button
6	Squeegee suction switch
7	Waste tank lever
8	Flap lever
9	Front brushes switch
10	Central brush lever
11	Red pilot light – flap off
12	Green pilot light – flap on
13	Ammeter led (battery version)



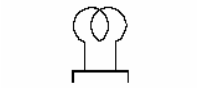
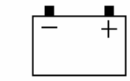
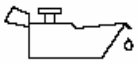
14	Oil indicator
15	Battery charger indicator
16	Water temperature indicator
17	Water cock lever
18	Parking brake
19	Gas pedal
20	GAS button
21	Key switch
22	Starting

SYMBOLS ON THE DASHBOARD

	Battery charge pilot light		Filter shaker
	Key switch		Battery charge status
	Flashing light		Waste tank down
	Horn		Waste tank up
	Squeegee suction		Bucket on
	Parking brake		Bucket off
	Sweeper suction on		Washing brushes plate out
	Solution cock		Washing brushes plate in
	Squeegee up		Washing brushes on
	Squeegee down		Washing brushes off
	Central brush on		Side sweeping brushes on
	Central brush off		Side sweeping brushes off
	Ammeter (battery version)		Attention: hot muffler
	Oil drainage		Brushes plate translation

4.7. FUNCTIONING

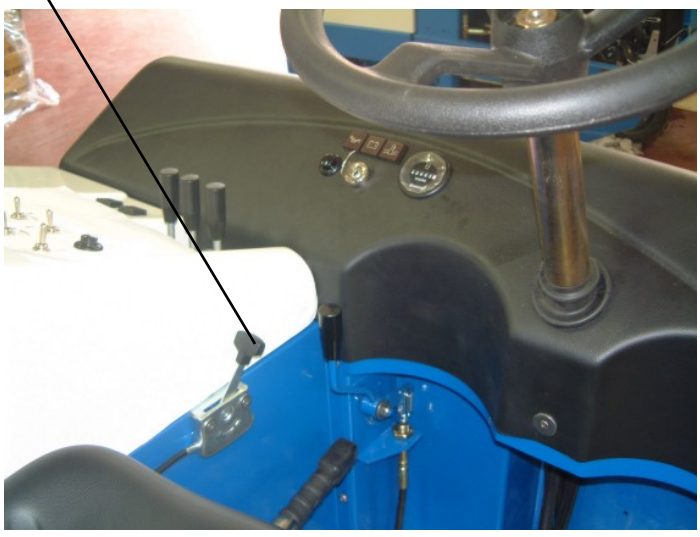
Machine starting

	Glow plugs
	Battery charge
	Oil pressure
	Engine temperature pilot light

The operator has to turn clockwise the key in the dashboard until he/she hears a click. Then the operator has to wait for a while until the glow plugs pilot light switches off (see detail 7 in picture nr. 2) and turn clockwise the key again in order to start the engine.

Before starting the sweeping scrubbing machine, please check the oil level into the hydraulic oil tank. The oil level must be between the first and the second notch of the oil dipstick. If the oil level is unsufficient, please top it up after having switched the machine off and kept the ignition key away from the dashboard.

Important: before starting the machine, please make sure that the gas lever is in the same position as shown in the picture below. The operator can move this lever towards the dashboard only after the engine start. In this way the number of revolutions increases.



I115SS can sweep and wash the floor at the same time. Please follow the instructions below for a perfect cleaning:

- start the side brushes, the central brush and the sweeping brushes suction;
- low the squeegee;
- start the washing brushes;
- open the solution cock and regulate the solution quantity;
- press the suction switch;
- close the water cock because it does not depend on the feed pedal.

The operator, thanks to his/her experience, has to choose the right kind of brush and detergent for the surfaces that has to be washed and to decide if the floor needs a second washing. If the floor is particularly dirty, the operator has to:

- sweep the floor;
- wash the floor with washing brushes down and squeegee up;
- open the water cock;
- leave the solution on the surface to dissolve the dirt;
- do a second washing with brushes and squeegee down, the suction activated and the solution solenoid valve open.

The machine is equipped with a particular device that translate the brushes plate to the right in order to do a better cleaning. This function allows the brushes replacement, too.

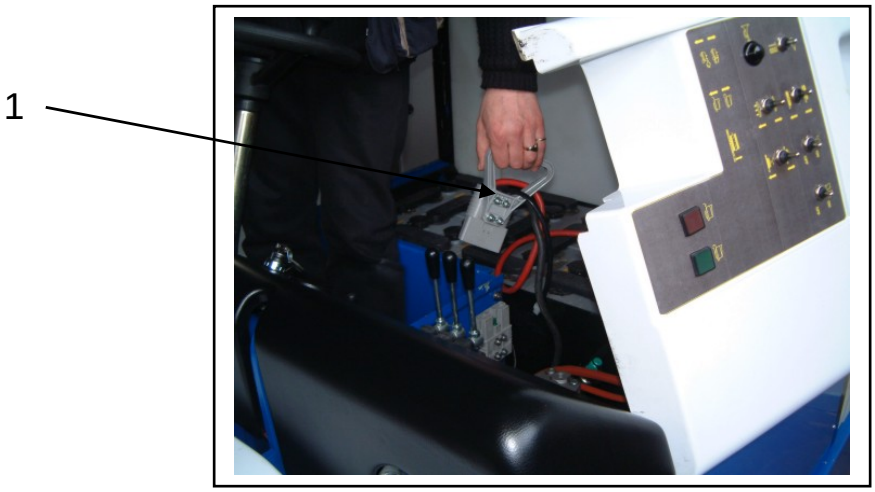
	The engine version of the machine has always to work at ¾ of its peak rpm. In this way both the brushes and its motors can work correctly.

NB:

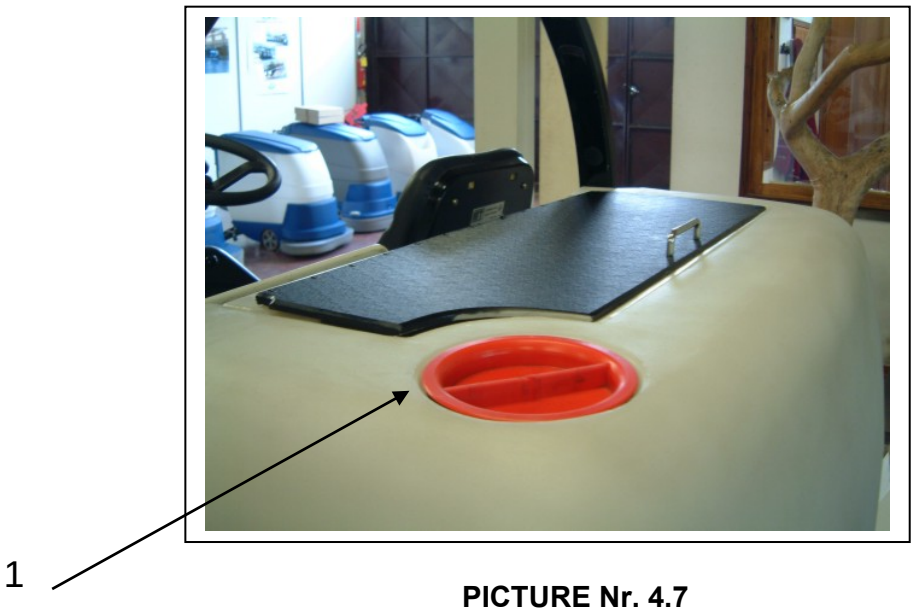
	Before any operation, make sure that all protections are well fixed.

4.7.1 PREPARING AND STARTING THE MACHINE

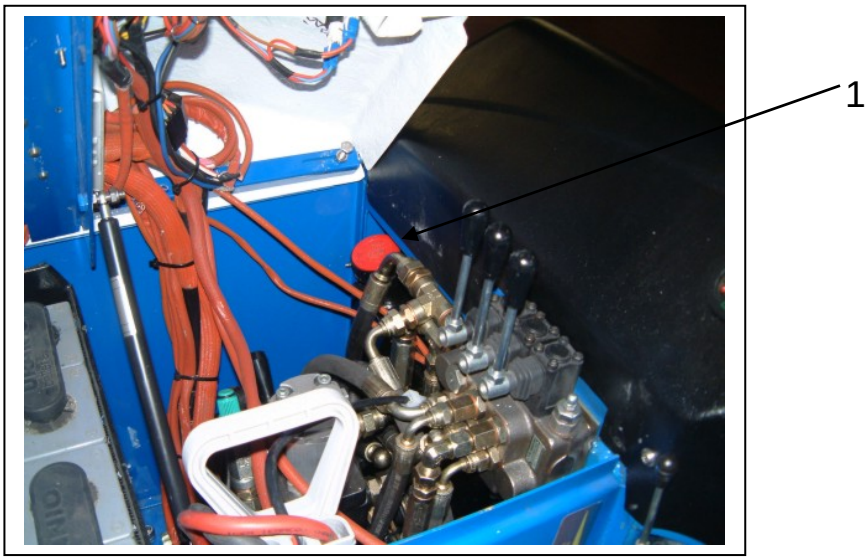
If the machine is connected with the battery charger, the operator must firstly disconnect the battery charger plug from the batteries one and connect the batteries plug with the power supply plug (see picture 4.6. – battery version). Secondly, the operator must fill water lifting the recovery tank up and turning the cap (see detail nr. 1 in picture nr. 4.7.). Moreover, the operator has to check the hydraulic oil level lifting the batteries cover up (see picture nr. 4.8 detail 1) and unscrewing the red cap under the electric system (see picture nr. 4.8 detail 1). Now the operator can seat on the machine and start it.



PICTURE Nr. 4.6



PICTURE Nr. 4.7



PICTURE Nr. 4.8

4.7.2 CHOOSING THE RIGHT DETERGENT

Choosing the right detergent is very important for a perfect cleaning. A too strong detergent could damage the surface. A good quality detrgent has to produce little foam. Alternatevely, the operator can add an antifoaming additive or 50 cc of wine vinaigre in the recovery tank in order to avoid the suction motor damage.

Make sure that the detergent is suitable for the dirty surface. FIORENTINI S.r.l. is not responsible for damages provoked by too aggressive detergents.

4.7.3 REGULATE THE DRIVING POSITION

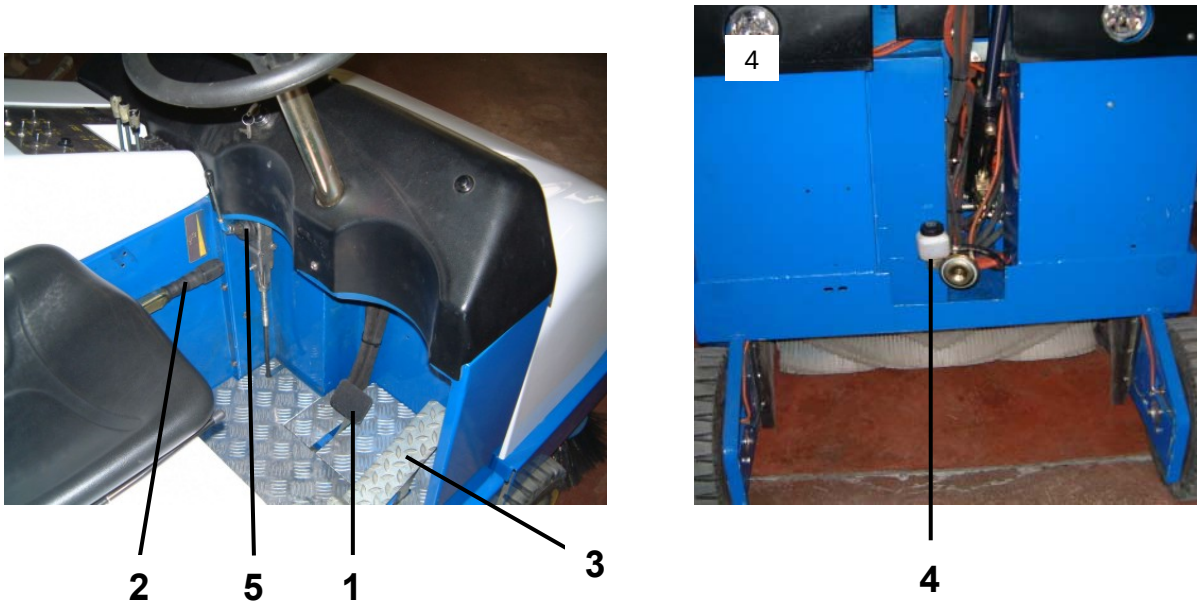
By means of the lever (see detail nr. 1 in picture nr. 4.9.) for the steering column regulation, the operator can pull backward or push onward the steering wheel in order to have a driving position which fits his/her body.

PICTURE Nr. 4.9

4.7.4 RUDDER BAR FUNCTIONING

The rudder bar of this machine is composed by:

- Accelerator pedal (see detail 3 in picture 4.10). The operator has to press the front side of the pedal for the forward gear or the back side of the pedal for the reverse gear;
- Service brake: it is activated by a pedal placed on the left side of the footboard (see detail 1 in picture 4.10);
- The service brake is activated by means of a lever (see detail 2 in picture 4.10): the operator has to pull the lever up until the developed pressure can lock the machine;
- The brake is hydraulic. Its oil tank is placed in the front side of the machine, behind the waste tank (see detail 4 in picture 4.10).



PICTURE Nr. 4.10

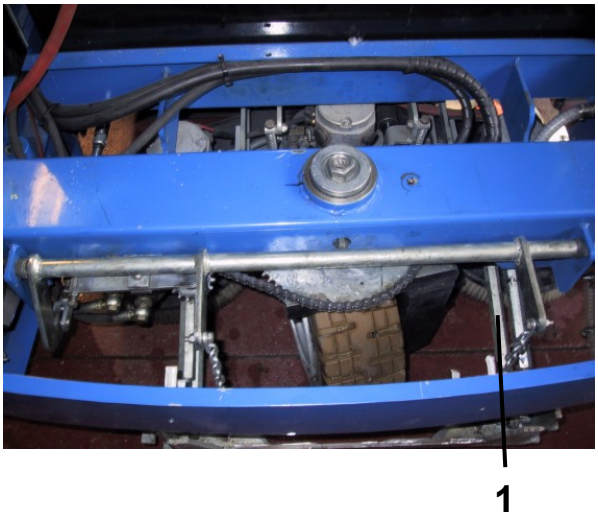
4.7.5 DETERGENT CONTROL

During the washing the operator can control the detergent quantity by means of a cock, which is at the bottom of the machine on the left inside the protection rubber (see detail nr. 5 in picture 4.10.).

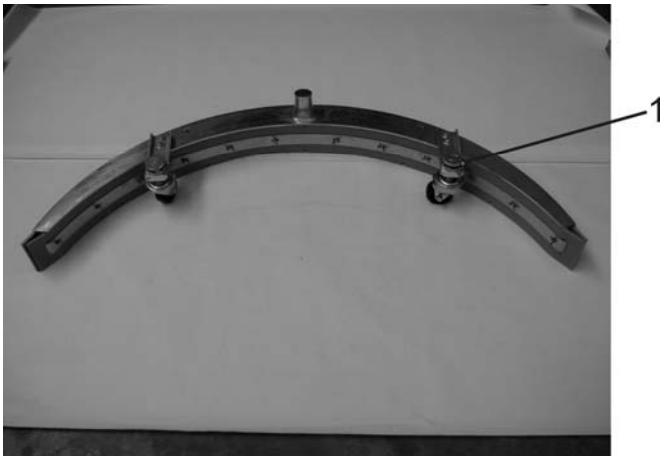
4.7.6 SQUEEGEE ADJUSTMENT

The squeegee has to be well regulated in order to have a perfect dry system. This kind of squeegee can perfectly suck water, which flows into the suction pipe, but it must be parallel to the surface.

- Remove the ignition key from the dashboard in order to avoid the casual starting of the machine.
- By means of the exagonal tie rods regulate the squeegee inclination (see detail 1 in picture nr. 4.11)
- Regulate the squeegee pressure by means of the ring nuts that control the distance between the wheels of the squeegee and the floor (see detail 1 in picture nr. 4.12).



PICTURE Nr. 4.11



PICTURE Nr. 4.12

Make sure that the two wheels of the squeegee are well regulated in order to keeps both its blades parallel to the floor.

4.7.7 WATER DISCHARGE AND WASTE TANK EMPTYING

This machine is equipped with two pipes for water discharge (picture 4.13):

- A pipe for the recovery tank discharge (see detail nr. 1 in picture nr. 4.13);
- A portole for the recovery tank cleaning (see detail nr. 2 in picture nr. 4.13);
- A suction pipe (see detail 3 in picture nr. 4.13).

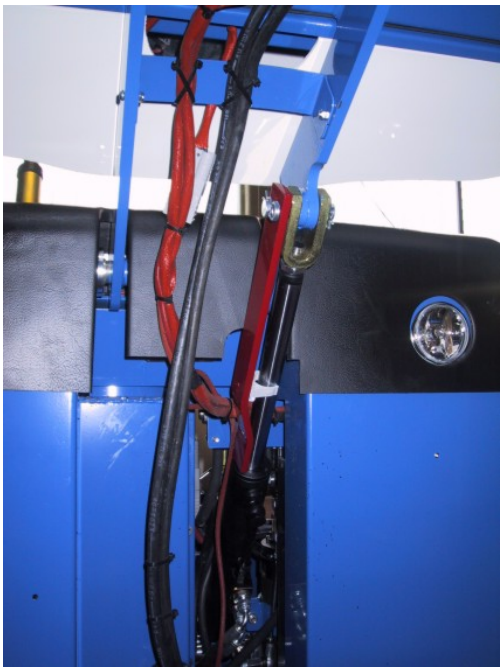
If you need to discharge water from the tanks, you have to place the machine on a dump well, release the pipe of the tank and open the rubber cap at the end of the pipe itself.

PICTURE Nr. 4.13

Waste tank emptying

The operator has to follow the instructions below in order to empty the waste tank:

- Stop and lift the sweeping brushes up;
- Close the suction lever;
- Close the bucket;
- Press for a few seconds the filter shaker switch;
- Lift the waste tank up;
- Place the waste tank on a waste bin;
- Open the bucket for the waste discharge;
- Press the shaker filter switch;
- Keep away from the waste bin and sink the waste tank. Pay attention that nobody is near the machine during this operation.



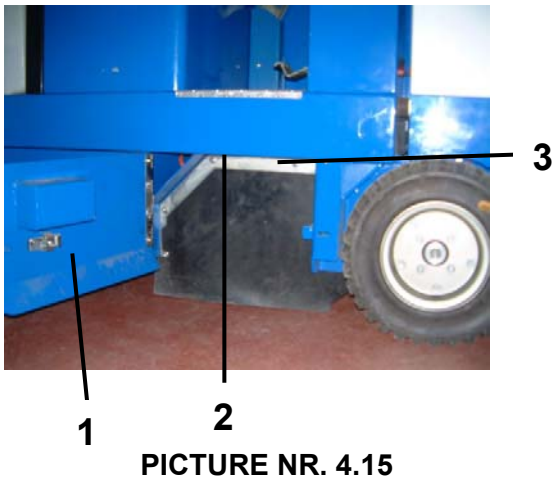
PICTURE Nr. 4.14

Make sure that THE RED SAFETY STOPPER IS WELL FIXED to the hydraulic jack when the recovery tank needs to be maintenained. Afterwards, REMOVE THE SAFETY STOPPER from the hydraulic jack and fixed to its support.

4.7.8 SWEEPING BRUSHES REPLACEMENT

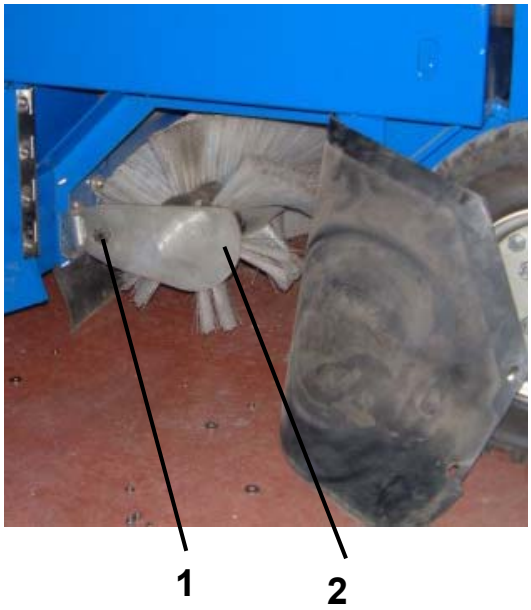
Central brush replacement

- Open the door on the right side of the machine (see detail 1 in picture nr. 4.15);
- Unscrew the bolt (see detail 2 in picture nr. 4.15) that hold the rubber sheet;
- Remove the sheet (see detail 3 in picture nr. 4.15);
- Remove the dust cover rubber (see detail 1 in picture nr. 4.16);
- Unscrew the knob (see detail 1 in picture 4.17) and open the brush support (see detail 2 in picture 4.17);
- Remove the brush (see detail 1 in picture 4.18):
- Set the brush up again (see detail 1 in picture nr. 4.18)
- do now the opposite instructions.



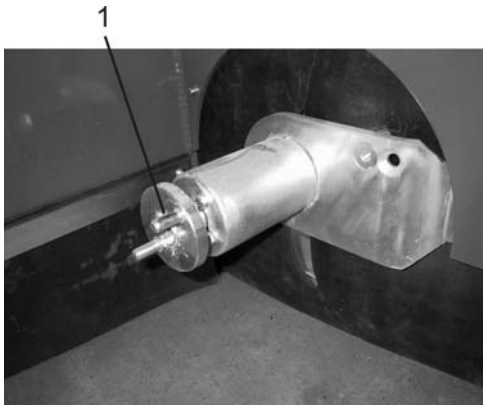
PICTURE NR. 4.15

PICTURE NR. 4.16



PICTURE NR. 4.17

PICTURE NR. 4.18



PICTURE NR. 4.18

Side brush replacement

- Unscrew the nuts (see detail 1 in picture nr. 4.19) and remove the brush;
- Replace the brush and screw the nuts again.

PICTURE Nr. 4.19

4.7.9 WASHING BRUSHES AND BLADES REPLACEMENT

Please follow the instructions below:

- Remove the ignition key from the dashboard in order to avoid the accidental start of the machine after having translated the brushes plate outside.
- Remove the split pin that hold the bumper wheel support pin (see detail 1 in picture nr. 4.20);
- Remove the right brush turning it until you can see the pin, pull the pin and remove the brush (see detail 2 in picture 4.20);
- Set the new brush up: place it under the exagonal support and press it up (see detail 3 in picture nr. 4.20);
- Start now the machine, place the brushes plate in its original position and switch the machine off;
- Follow the same instructions for the left and central washing brush;
- After having replaced the brushes, the operator has to set the cases and the split pin up again;
- Blade replacement: the operator has to unscrew the screws on the case and replace the blade.

FIGURA N° 4.20

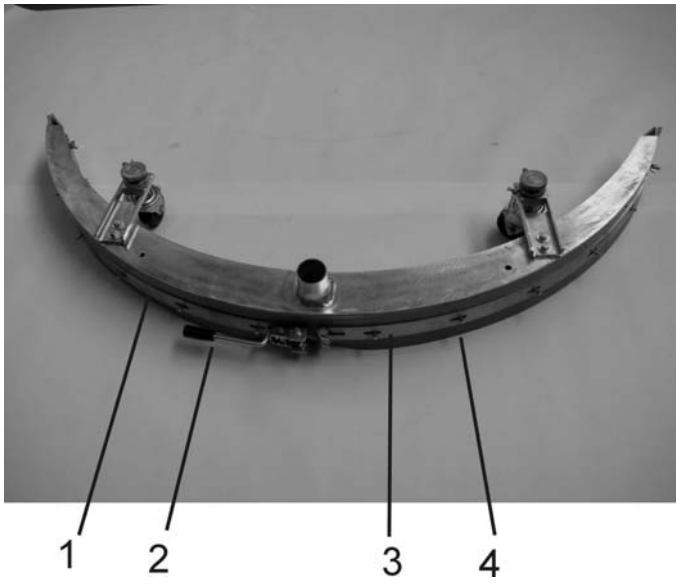
Before starting the machine again, please make sure that all the protection cases are well set up.

4.7.10 SQUEEGEE BLADES REPLACEMENT

Squeegee blades must be replaced when their hedges are worn. A perfect hedge allows a perfect dry (picture 4.19).

Please follow these instructions to replace the squeegee blades:

- Remove the squeegee from the machine and lay it on a table;
- Turn the lever (see detail 2 in picture 4.21), unloose the steel strip and the two side wing nuts;
- Remove the steel strips (see details 1 and 3 in picture nr. 4.21);
- Do now the opposite operation, set the new blades up and regulate the squeegee;
- Follow the same instructions to replace the front blade.

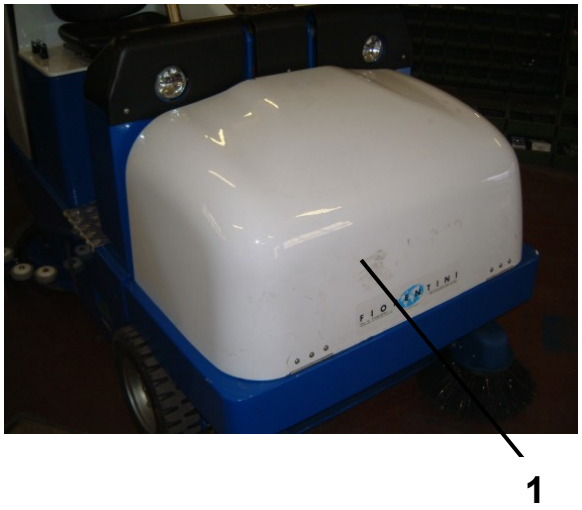


PICTURE Nr. 4.21

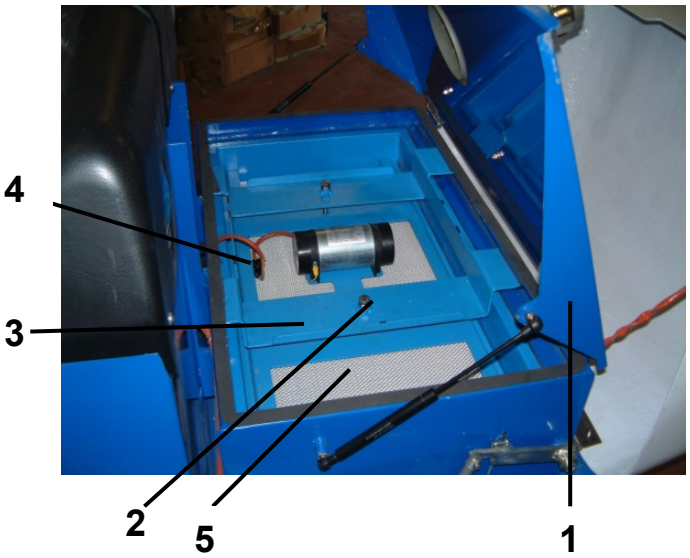
4.7.11 HOW TO REPLACE THE SUCTION FILTER OF THE SWEEPING GROUP AND THE SHAKER FILTER MOTOR

The filter shaker motor has to clean the filters from the dust by shaking them. The dust fall into the waste tank. If the shaker motor looses its function, it has to be replaced as follows:

- Remove the ignition key from the dashboard in order to avoid an accidental start of the machine;
- Open the bonnet of the machine (see detail 1 in picture nr. 4.21);
- Pull the cover of the tank up (see detail 1 in picture nr. 4.22);
- Unscrew the two knobs (see detail 2 in picture 4.22) that fasten the filter;
- Remove the support of the shaker filter motor (see detail 3 in picture 4.22);
- Disconnect the connectors (see detail 4 in picture 4.22) of the filter shaker motor;
- Replace the damaged or obstructed filter (see detail 5 in picture 4.22);
- do now the opposite instructions.



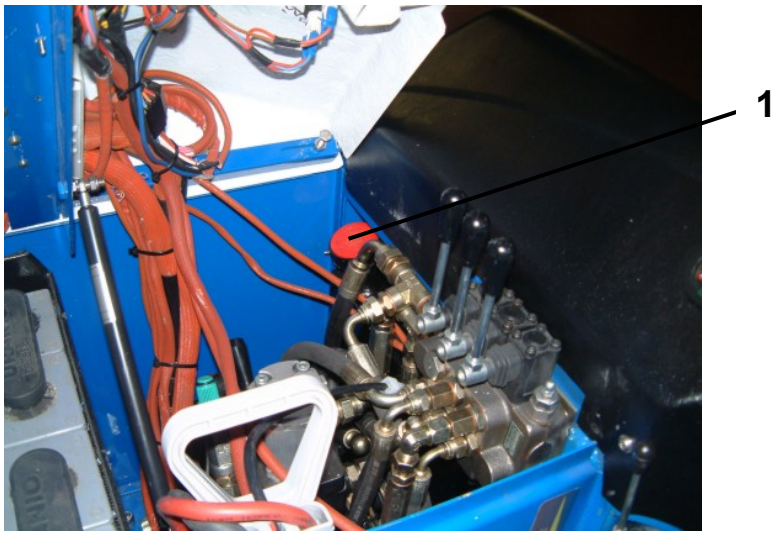
PICTURE Nr. 4.22



PICTURE Nr. 4.23

4.7.12 *HYDRAULIC OIL TOPPING UP*

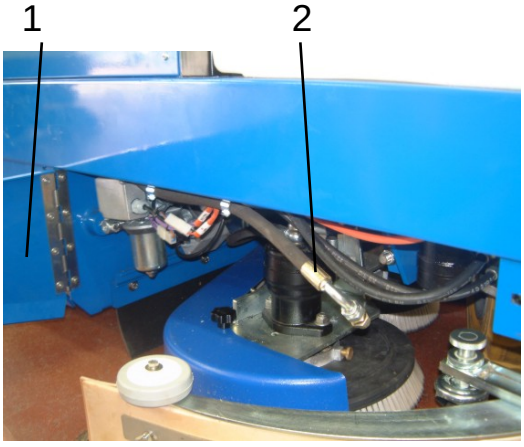
The oil level does not change, but when there are leaks from the unions or the hydraulic pipes. In this case, the operator has to top the hydraulic oil up from the cap (picture 4.24) after having lifted the batteries cover up.

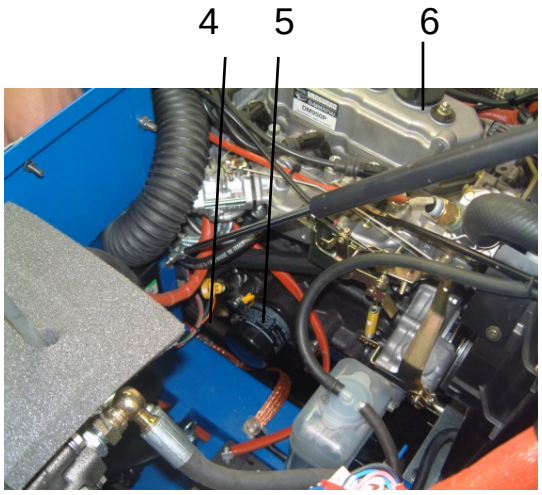


PICTURE Nr. 4.24

4.7.13 *Engine oil and filter: check and replacement*

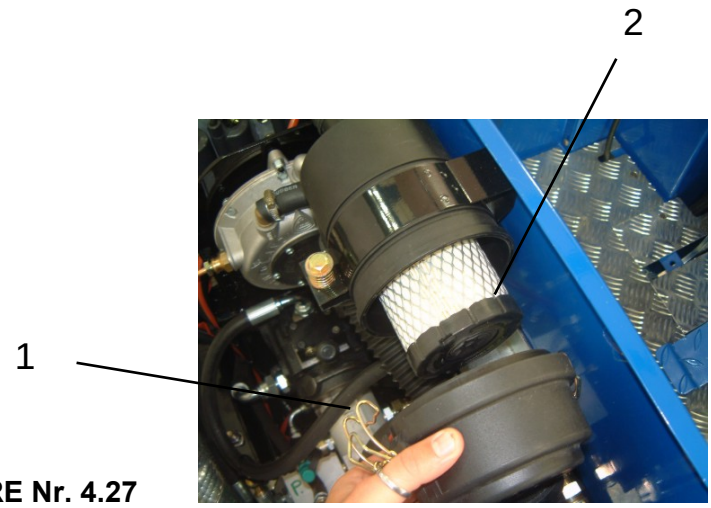
- Keep the ignition key away from the dashboard;
- Lift the bonnet that holds the seat;
- Open the side case (see detail 1 in picture 4.25);
- Remove the oil pipe (see detail 2 in picture 4.25);
- Turn the oil cap (see detail 3in picture 4.26);
- Unscrew the oil filter (see detail 3 in picture 4.26);
- When the oil pipe is completely empty, put it again into the side case (see detail 4 in picture 4.26); set a new oil filter up; fill the engine with oil as shown into the engine user manual;
- Check the oil level with the dipstick (see detail 4 in picture 4.25);
- Screw the oil cap and close the bonnet.





4.7.14 *Air filter replacement*

- Keep the ignition key away from the dashboard;
- Lift the bonnet that holds the seat;
- Unhook the two stoppers of the filter support (see detail 1 in picture 4.27);
- Remove the air filter and replace it with a new one (see detail 2 in picture 4.27);
- Close the support by means of the two stoppers (see detail 1 in picture 4.27);
- Close the bonnet.



PICTURE Nr. 4.27

5. MAINTENANCE

5.1. PERIODICAL MAINTENANCE

A periodical maintenance is very important.

Please write down in the format you find below all the interventions done on the machine.

- *Trained personnel only can service the machine and especially electric and electromechanical parts by means of suitable tools and equipments.*
- *Make reference to FIORENTINI S.r.l. only for service and spare parts (§ 7.1. and § 7.2.).*

OPERATION	INTERVENTION	HOW OFTEN
Cleaning	Clean the recovery tank and the oil filter of the suction motor	Every day
	• ***Do not use corrosive substances.*** a ***Do not use bolts of water.***	
	• Check the suction pipes and the squeegee	Every week
Check up Cleaning	➢ Check the rubber suction blades of the squeegee ➢ Check the water battery level	Every 15 days
	• Check the filter of the clean water tank	Every month
	Check and regulate the breaking system	Every 3 months
	Check the connection of the battery cables	Every 6 months
	Check the brushes of each motor	Every year
	➢ Check the safety devices Check the electric system	Every year
	Clean the recovery tank and the oil filter of the suction motor	Every day

5.2 ENGINE MAINTENANCE

In order to maintain the internal combustion engine, the operator has to check:

- ➢ the engine oil level every 50 hour-work and replace it every 150 hour-work;
- ➢ the coolant level every 50 hour-work;
- ➢ the air filter (replace it every 100 hour-work);
- ➢ the fuel filter (replace it every 250 hour-work);
- ➢ the engine oil filter (replace it every 300 hour-work);
- ➢ the hydraulic oil filter (replace it every 750 hour-work);
- ➢ the tension of the alternator belt every 250 hour-work;
- ➢ the injectors setting and cleaning every 1000 hour-work;
- ➢ the regulation of the equalizers clearance every 1000 hour-work.

Please make reference to the engine user manual for any other control.

5.3 BATTERIES MAINTENANCE (battery version)

- The operator has to check the batteries charge when the machine is on duty by means of the indicator on the dashboard.

	The operator must keep the battery room open during the batteries recharge. Moreover: ➢ *It is forbidden to use flames and/or to smoke near the batteries;* ➢ *Pay attention to the battery acid;* ➢ *Do not develop sparks near the batteries;* ➢ *Pay attention to the batteries gazes, which can burst;* ➢ *Do not invert battery polarities.*

5.2.1 HYDROMETRY

In order to check the batteries hydrometry the operator has to follow the instructions below:

- By means of a hydrometre draw a small quantity of electrolyte so that the floater reaches the surface;
- Make sure that the floater inside the hydrometre is not blocked;
- For a new measurement, after having filled the batteries with distilled water, the operator has to wait until the liquid inside each battery becomes homogeneous.

5.2.2 WATER FILLING UP

- Fill distilled water up in each battery cell before the recharge. The liquid inside the batteries has to be of 6 mm. over the plates;
- The operator has to repeat the same operation every time the level decreases (every week).

5.2.3 CHARGE LIMITS

It is not necessary to recharge the batteries if the hydrometry, after a work day, is not under 1,24 (28 Bè). The highest suggested temperature is 45°C. If the electrolyte temperature increases more than 10/12 °C compared to the outside temperature, the batteries can be overcharged.

5.2.4 OFF DUTY OR INACTIVE BATTERIES

Inactive batteries looses their automatically their charge. If batteries do not continually work, the operator has to:

- Charge the batteries once a month with a 'final' stream intensity until gas is spread and the batteries voltage and weight are constant for 3-4 hours. This operation has to be done even if the absolute weight is high;
- Keep the batteries in a dry room.

5.2.5 BATTERY CHARGER TECHNICAL FEATURES

The battery charger has to show the features listed in the scheme below:

IN	230V, 50Hz, 5A
OUT	36V, 30A

See § 2.3 TECHNICAL DATA for the batteries technical features.

5.2.6 BATTERIES DISPOSAL

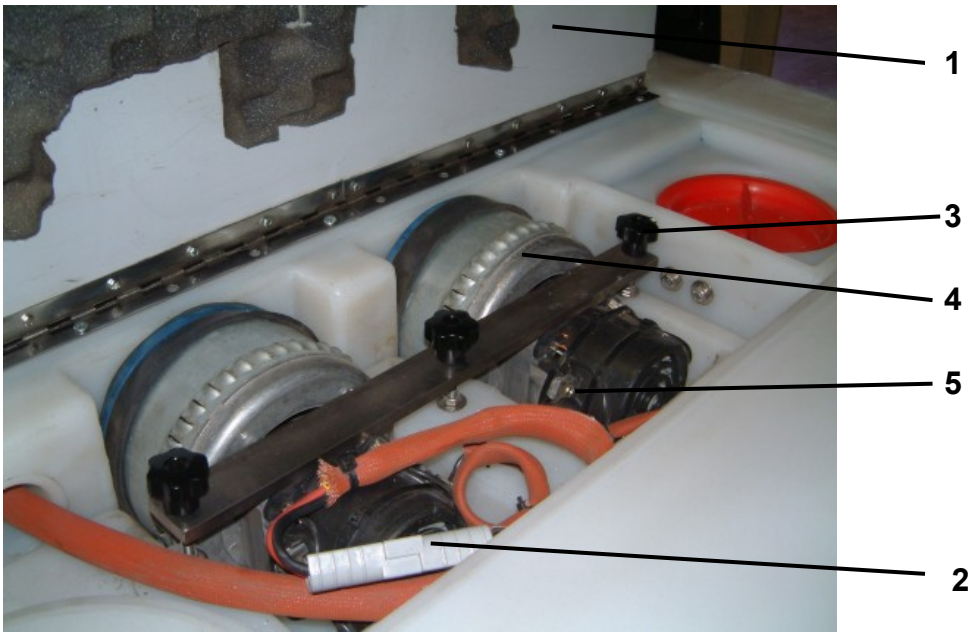
Old batteries are toxic wastes and they have to be thrown in a suitable and authorized place for the batteries disposal. For a short storage, old batteries must be located in an authorized room. Moreover, they must be stored in sealed plastic tanks, whose capacity is not lower than the electrolyte.

5.3 SUCTION MOTOR MAINTENANCE

The suction motor has to be checked up and cleaned. Every six months motor brushes have to be checked and replaced if it is necessary.

To maintain the suction motor please follow the instructions below:

- Take the ignition key off the dashboard, disconnect the plug (see detail 3 in picture 5.1), remove the steel plate that fixes the suction motor and the motor itself (see detail 1 in picture 5.1);
- Remove the sponge filter under the motor, wash it and put it again in its position;
- Check the motor fan through the hole in the front side of the suction motor;
- Remove the plastic cover, lossen the screws and both the brushes supports and check the motor brushes (see detail 2 in picture 5.1);
- Do now the opposite operations to set everything up again.



PICTURE Nr. 5.1

5.4 ELECTRIC EQUIPMENT CONTROL

It is very important to check the electric system up every two years. Disconnected cables or burnt cables must be immediately replaced.

Interventions on the electric system must be carried out by a trained technician. Every kind of intervention not explained in the operator manual must be carried out by FIORENTINIs technicians.

5.5 Tests to be carried out

As far as the maintenance of the gasoil, petrol or GPL version is concerned, the operator has to follow the engine user manual.

PERIODICAL CHECKS	Every 10 hours	Every 20 hours	Every 50 hours	Every 125 hours	Every 250 hours	Every 500 hours	Every 750 hours	Every 1000 hours	Every 2500 hours	Every 5000 hours
Clean the recovery tank	x									
Clean the suction filter engine		x								
Check the hydraulic oil level			x							
Check the blades and the suction pipes of the squeegee			x							
Check the brake oil level			x							
Check the filter of the clean water tank (optional)				x						
Check the battery				x						
Check the radiator fins (machine with endothermic engine)				x						
Check the coal brush of each motor						x				
Check the electric system							x			
Check the safety devices					x					
Hydraulic oil filter replacement							x			
Hydraulic oil change								x		
Translator plate lubrication			x							
Check the gaskets			x							
Check if the dust filter is obstructed		x								
Check the lubrication of the steering wheel bearing				x						
Check the lubrication of the waste tank rotation axle				x						
Check and clean the clean water filter (optional)			x							

5.6. MAINTENANCE REGISTER

DATE	*OPERATOR*	*INTERVENTION*	*SIGNATURE*

6. TECHNICAL ASSISTENCE

6.1. SERVICE ADDRESSES

Do not hesitate to contact FIORENTINI S.r.l. service for any kind of information or request.

ING. O. FIORENTINI s.r.l.

"THE BEST IN FLOOR MACHINES"

FILIALI:
20132 MILANO – Fax. 02/2592779
Via Palmanova 211/a – Tel. 02/27207783 - 2564810
00155 ROMA – Fax. 06/22754075
Via Carlo Carrà 13 – Tel. 06/22754040-2275060
STABILIMENTO:
50030 PIANCALDOLI (FI) – Fax. 055/817144
Loc. Rombola – Tel. 055/8173610

Most of the technical problems can be sorted out with short intervention. This is why FIORENTINI S.r.l. suggest to read carefully this manual before using the machine. On the contrary, if the customer needs a FIORENTINI'S technician, please inform us about the problem in order to sort it out with the right material.

6.2 CLAIM REPORT

Please, fill in the format below if the machine shows particular problems.

Operator:

Company: _____

Operator's name: _____

Role: _____

Date: _____ Signature: _____

Machine description:

Machine: **I115SS-GAS** Type: _____

Purchase date: _____ S.N.: _____

Warranty: ❑ YES ❑ NO Work hours: _____

Where does the machine normally work? _____

Fault:

Code of the defected component: _____ Description: _____

Fault:	Fault short description:
❑ Mechanical component	
❑ Wrong functioning	
❑ Electric system	
❑ Engine	
❑ Missing component	
❑ Estremely noisy	
❑ Water leak	
❑ Other	

Customer's suggestion:

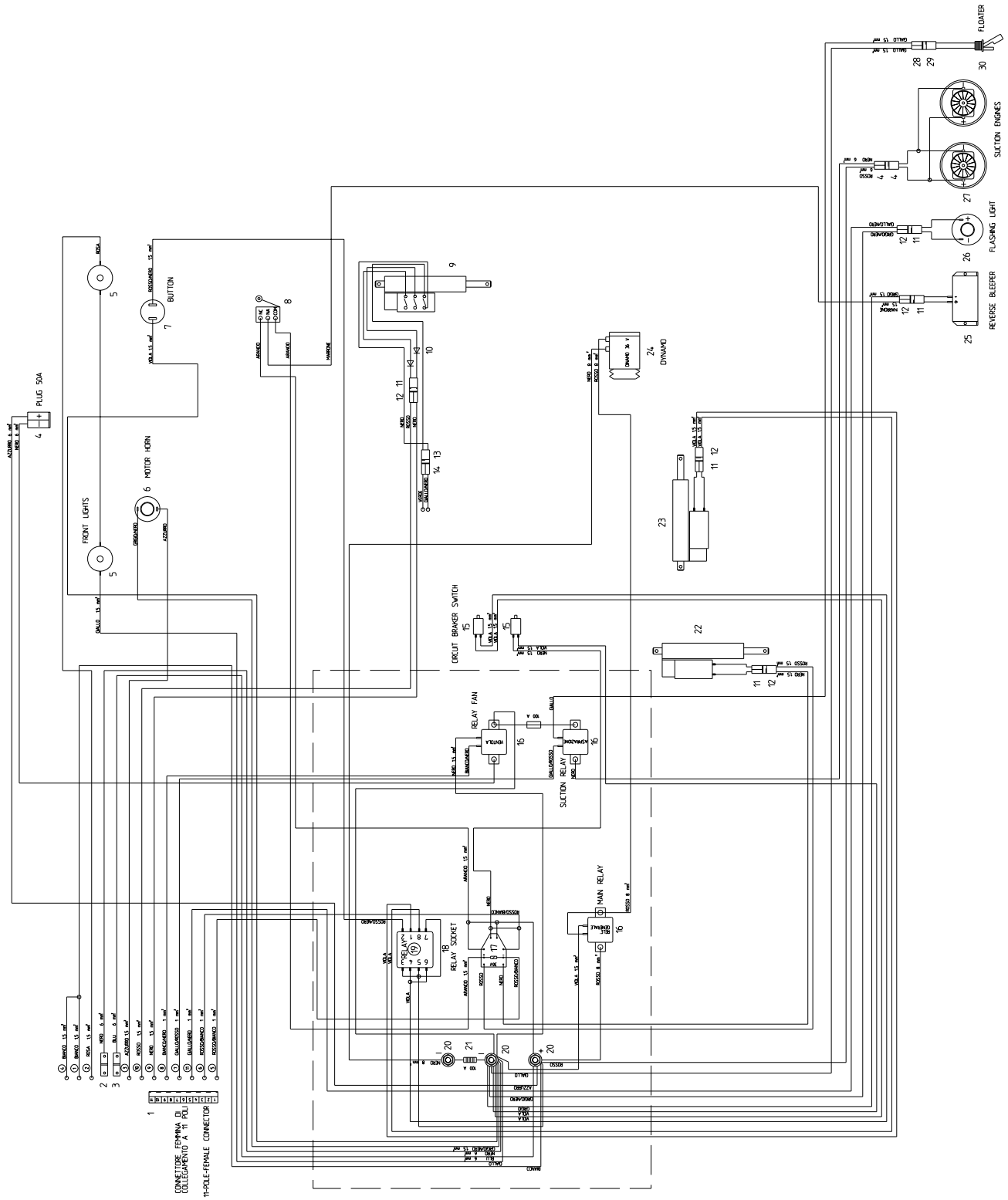
_____

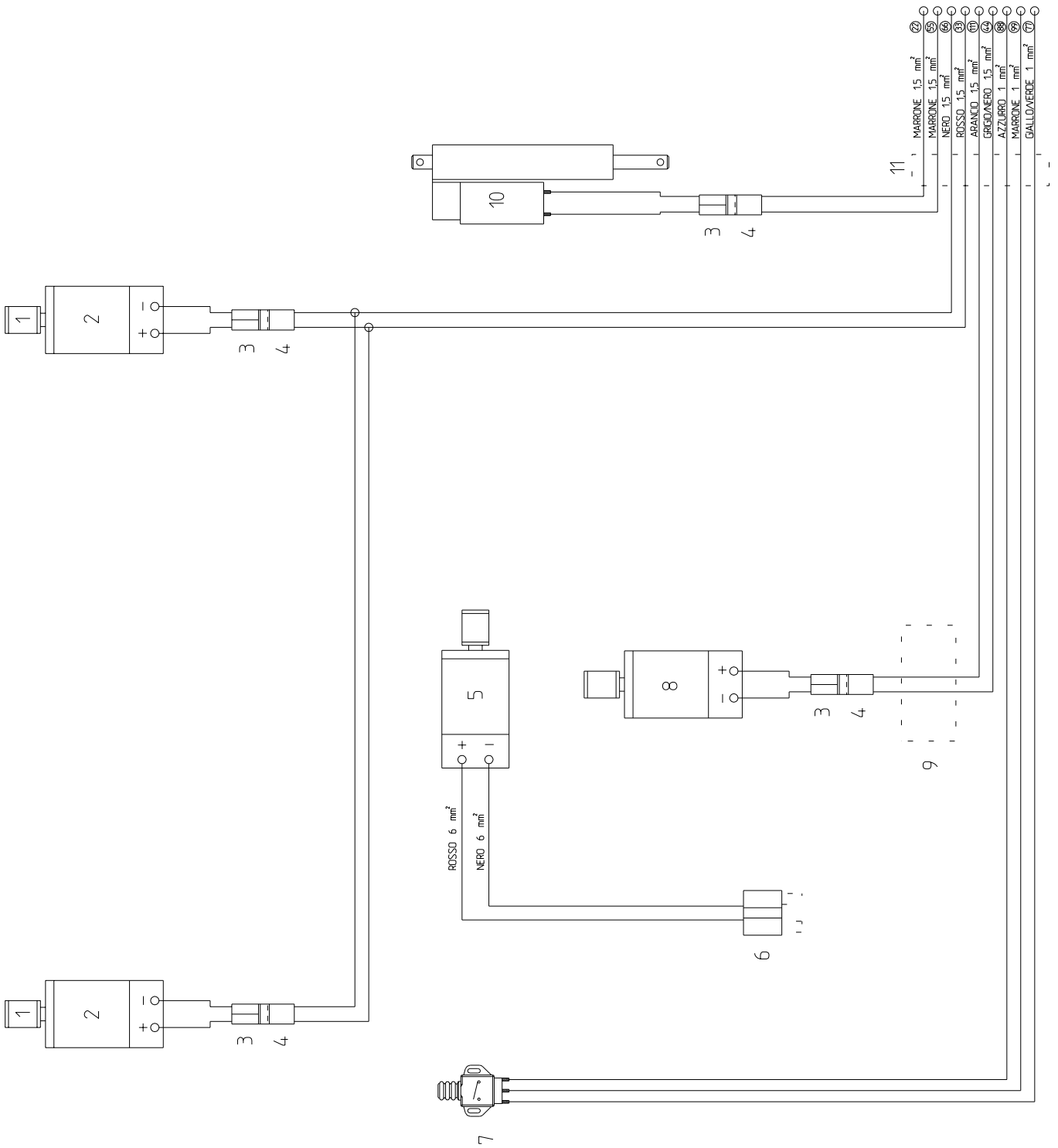
_____

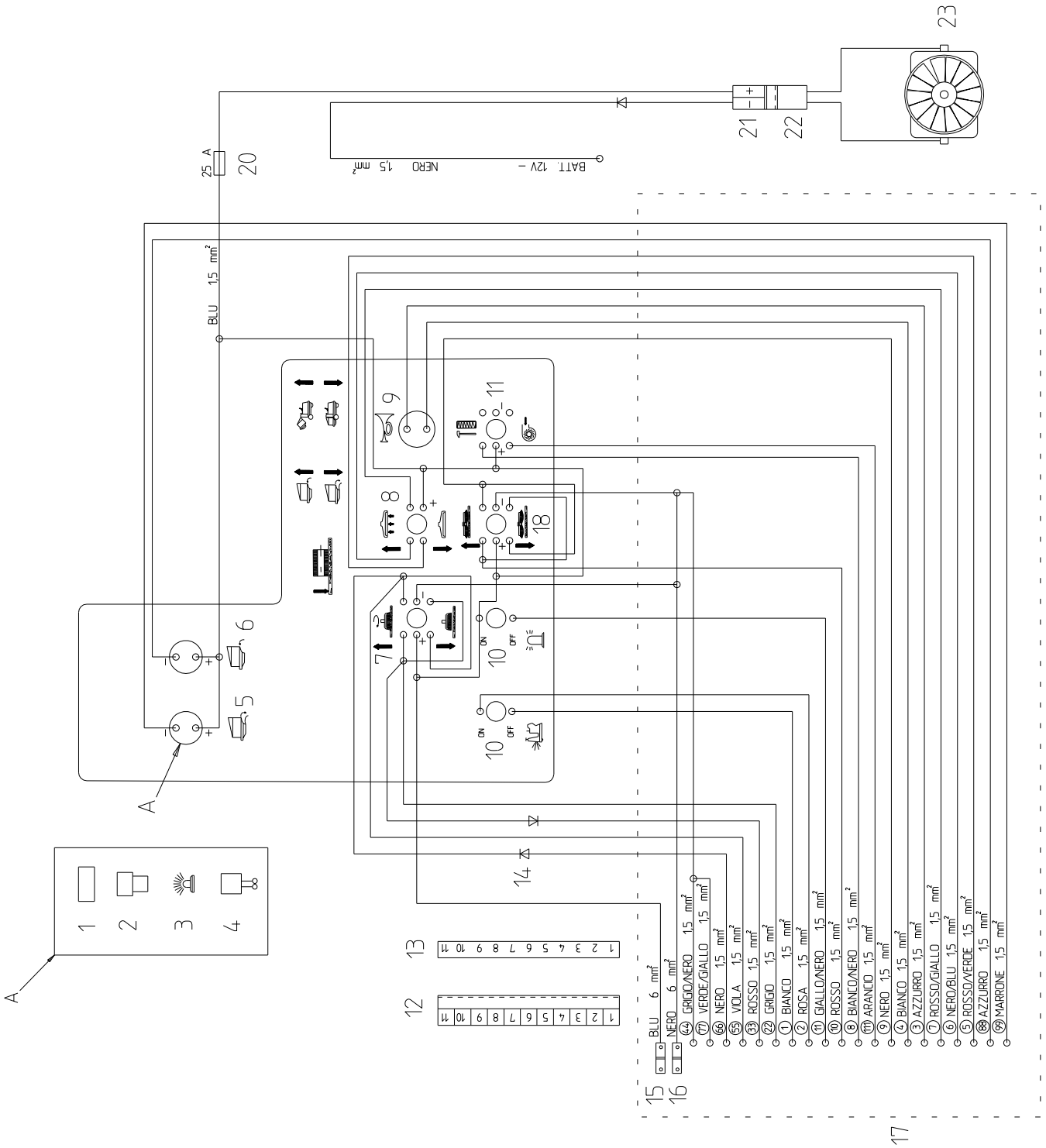
_____

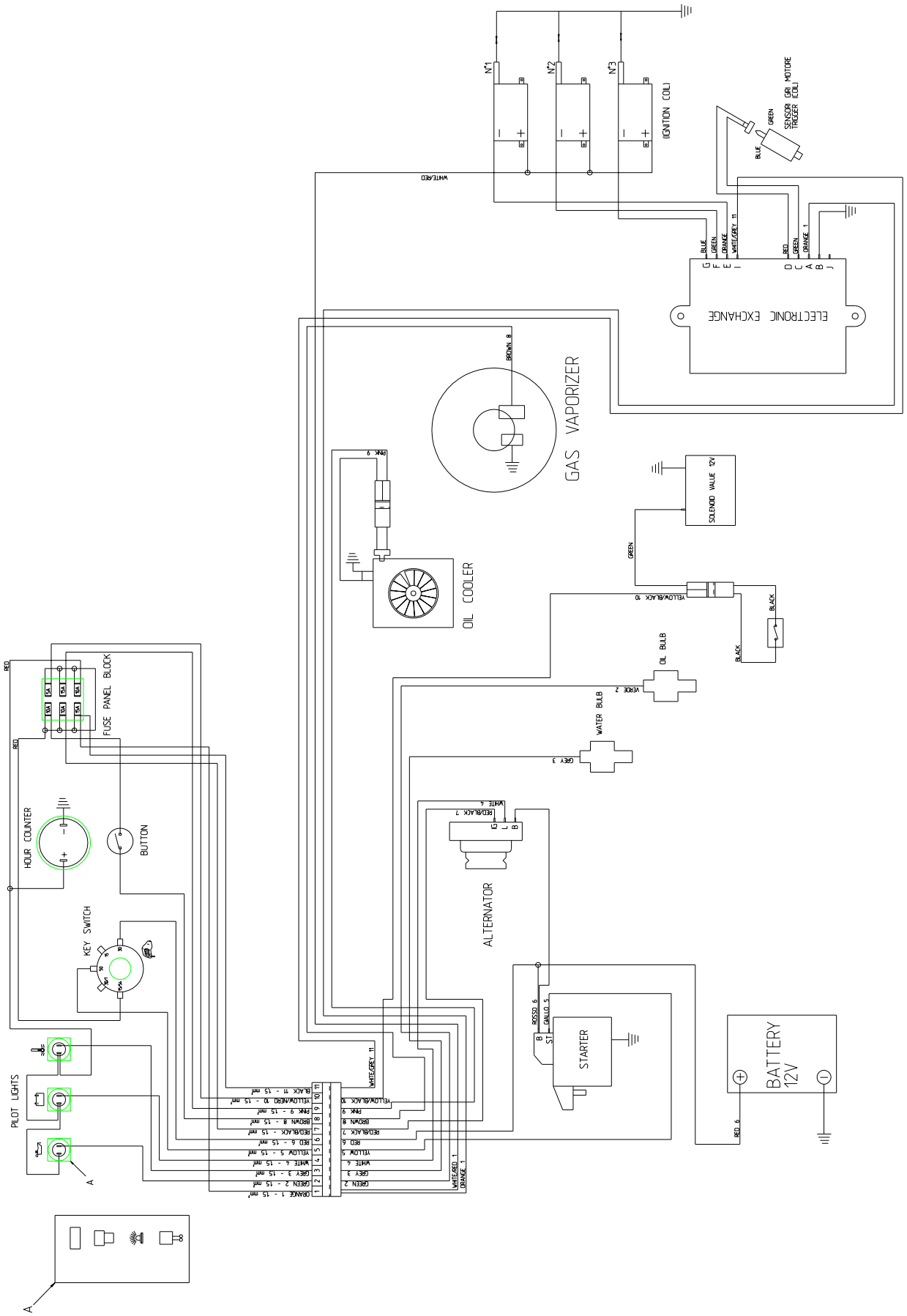
7. SCHEMI IMPIANTI

7.1 IMPIANTO ELETTRICO (GAS)

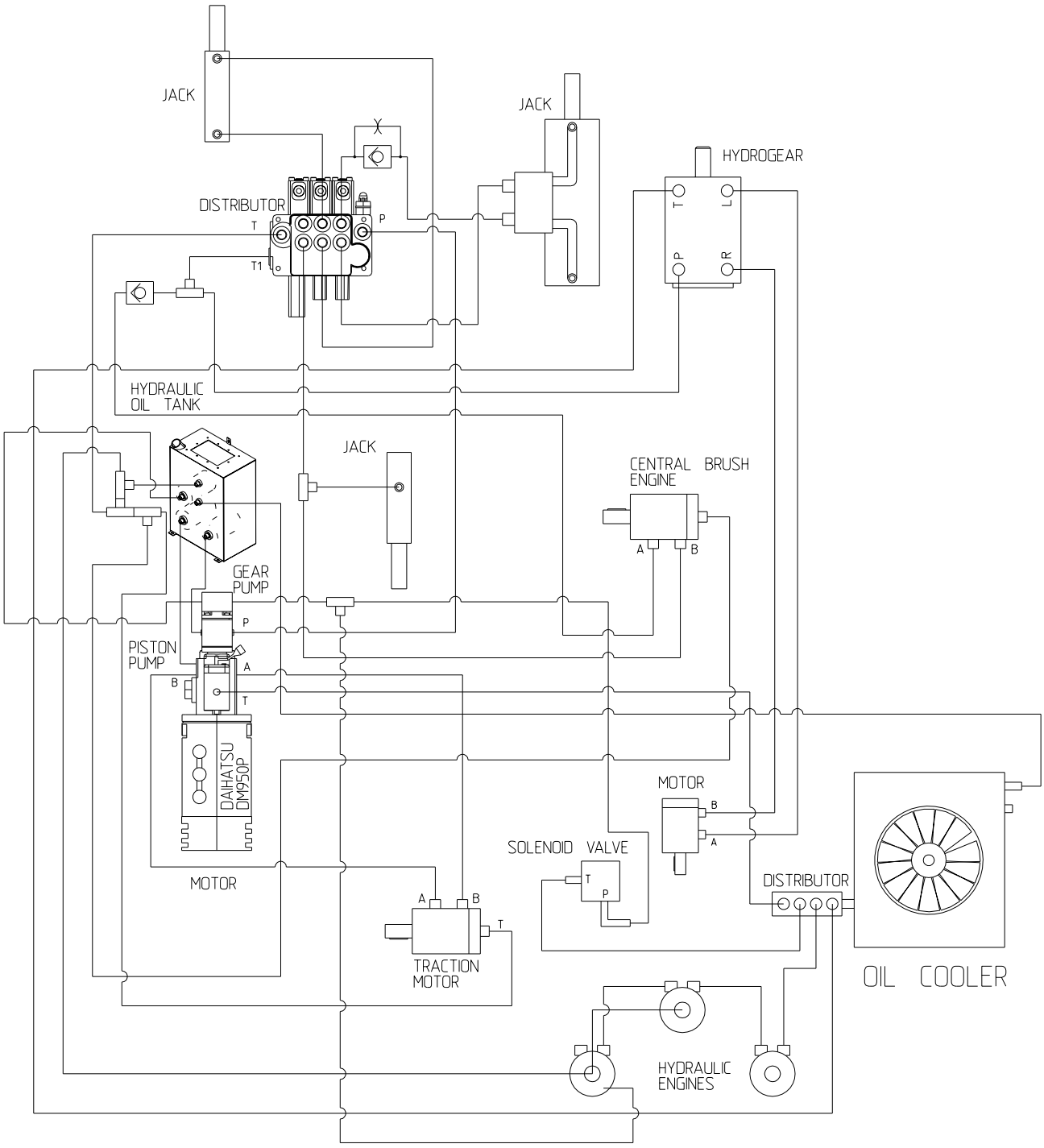



MARRONE 1,5 mm²
MARRONE 1,5 mm²
NERO 1,5 mm²
ROSSO 1,5 mm²
ARANCIO 1,5 mm²
GRIGIO/NERO 1,5 mm²
AZZURRO 1 mm²
MARRONE 1 mm²
GIALLO/VERDE 1 mm²
ROSSO 6 mm²
NERO 6 mm²

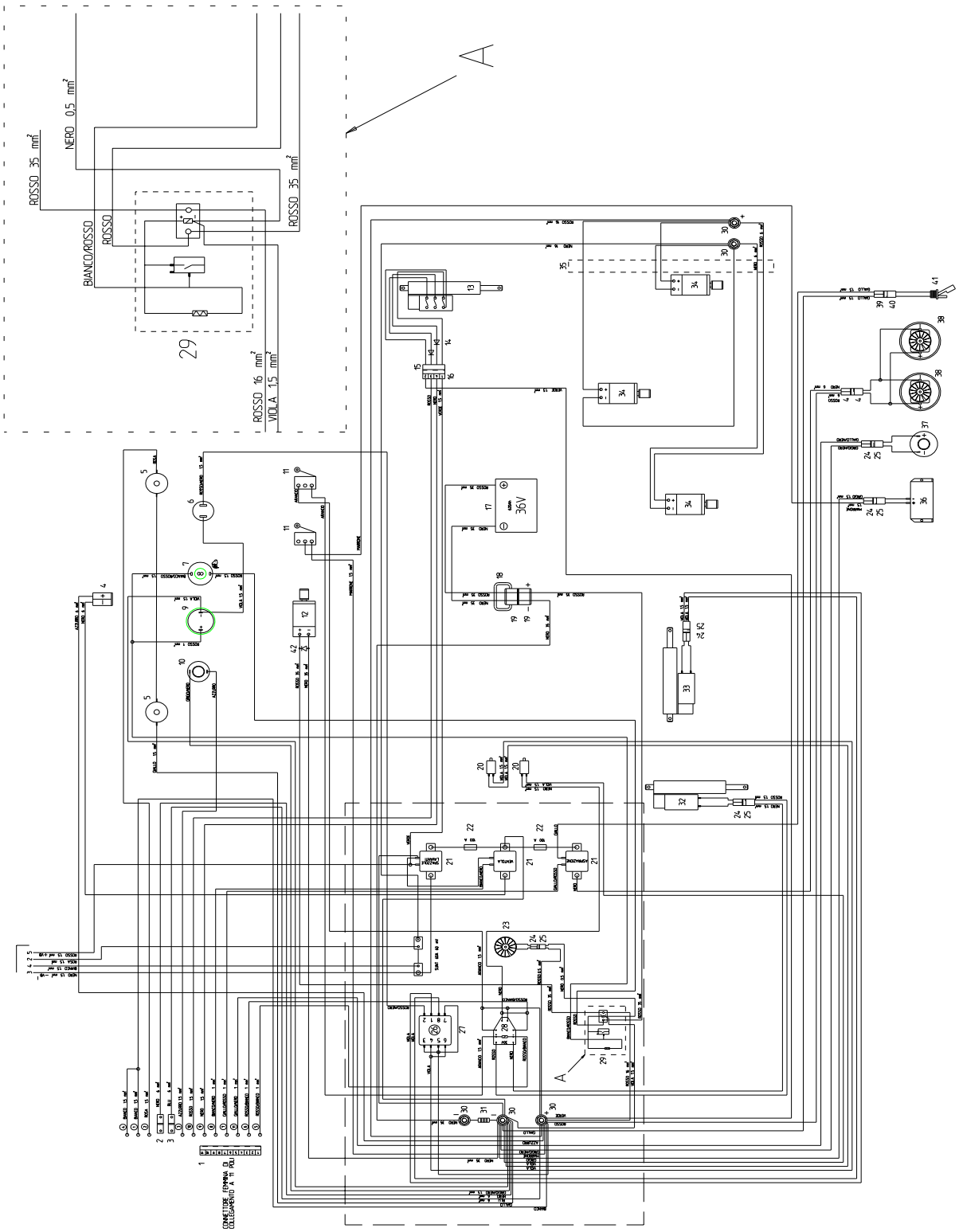

23
21
22
25 A
20
BATT. 12V -
NERO 1,5 mm²
BLU 1,5 mm²
9
11
8
18
7
10
ON
OFF
6
5
A
14
13
12
1 2 3 4 5 6 7 8 9 10 11
1 2 3 4 5 6 7 8 9 10 11
15
16
17
BLU 6 mm²
NERO 6 mm²
(44) GRIGIO/NERO 1,5 mm²
(77) VERDE/GIALLO 1,5 mm²
(66) NERO 1,5 mm²
(55) VIOLA 1,5 mm²
(33) ROSSO 1,5 mm²
(22) GRIGIO 1,5 mm²
(1) BIANCO 1,5 mm²
(2) ROSA 1,5 mm²
(11) GIALLO/NERO 1,5 mm²
(10) ROSSO 1,5 mm²
(8) BIANCO/NERO 1,5 mm²
(111) ARANCIO 1,5 mm²
(9) NERO 1,5 mm²
(4) BIANCO 1,5 mm²
(3) AZZURRO 1,5 mm²
(7) ROSSO/GIALLO 1,5 mm²
(6) NERO/BLU 1,5 mm²
(5) ROSSO/VERDE 1,5 mm²
(88) AZZURRO 1,5 mm²
(99) MARRONE 1,5 mm²
A
1
2
3
4


N°1
N°2
N°3
IGNITION COIL
SENSOR TRIGGER COIL
GRI MOTORE
GREEN
BLUE
WHITE/RED
ELECTRONIC EXCHANGE
GAS VAPORIZER
BROWN 8
PINK 9
OIL COOLER
SOLENOID VALVE 12V
GREEN
YELLOW/BLACK 10
BLACK
OIL BULB
WATER BULB
FUSE PANEL BLOCK
HOUR COUNTER
BUTTON
KEY SWITCH
ALTERNATOR
STARTER
BATTERY 12V
PILOT LIGHTS
WHITE/GREY 11
ORANGE 1
GREEN 2
GREY 3
WHITE 4
YELLOW 5
RED 6
RED/BLACK 7
BROWN 8
PINK 9
YELLOW/RED 10
BLACK 11

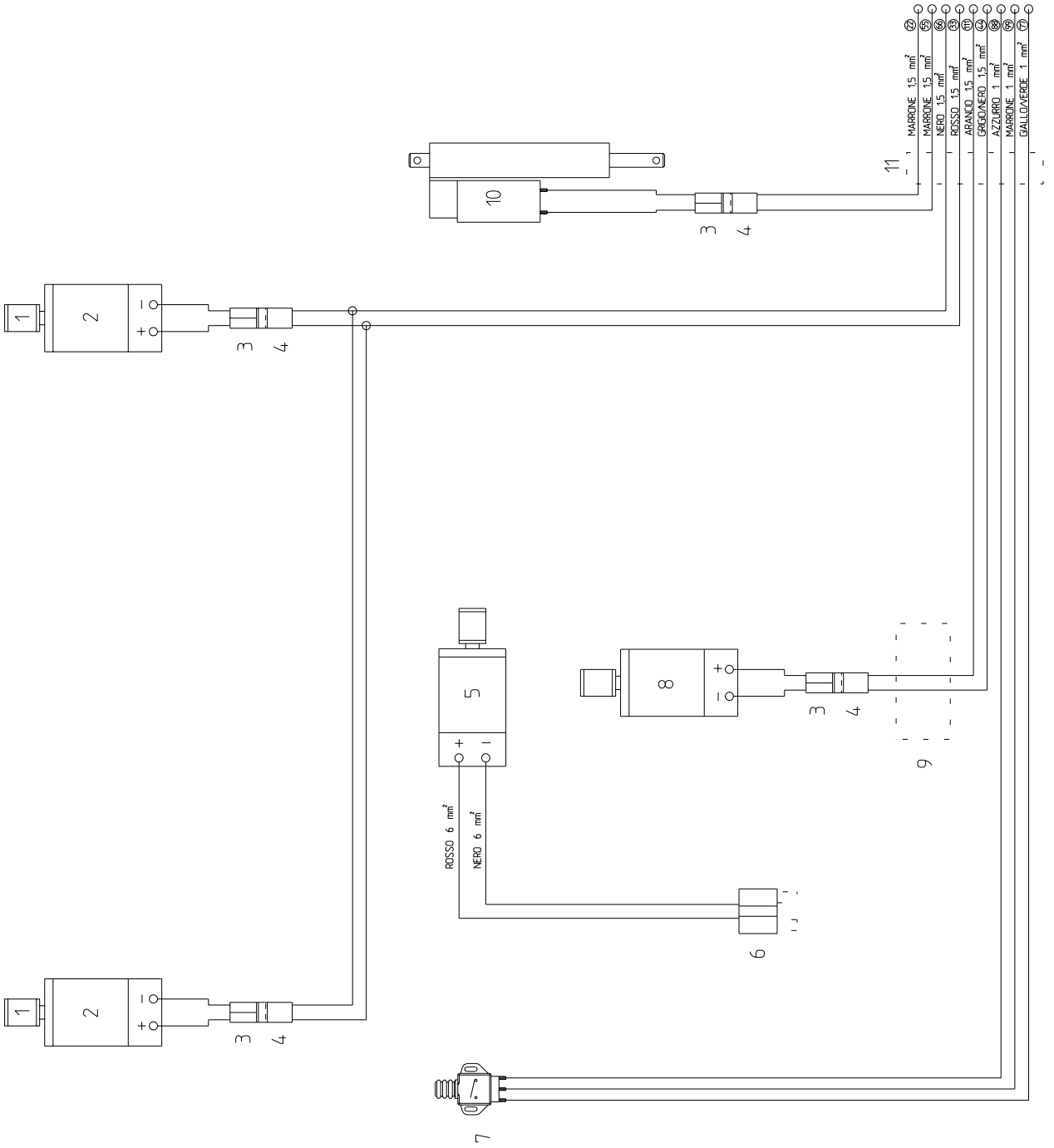
7.2 IMPIANTO IDRAULICO (GAS)



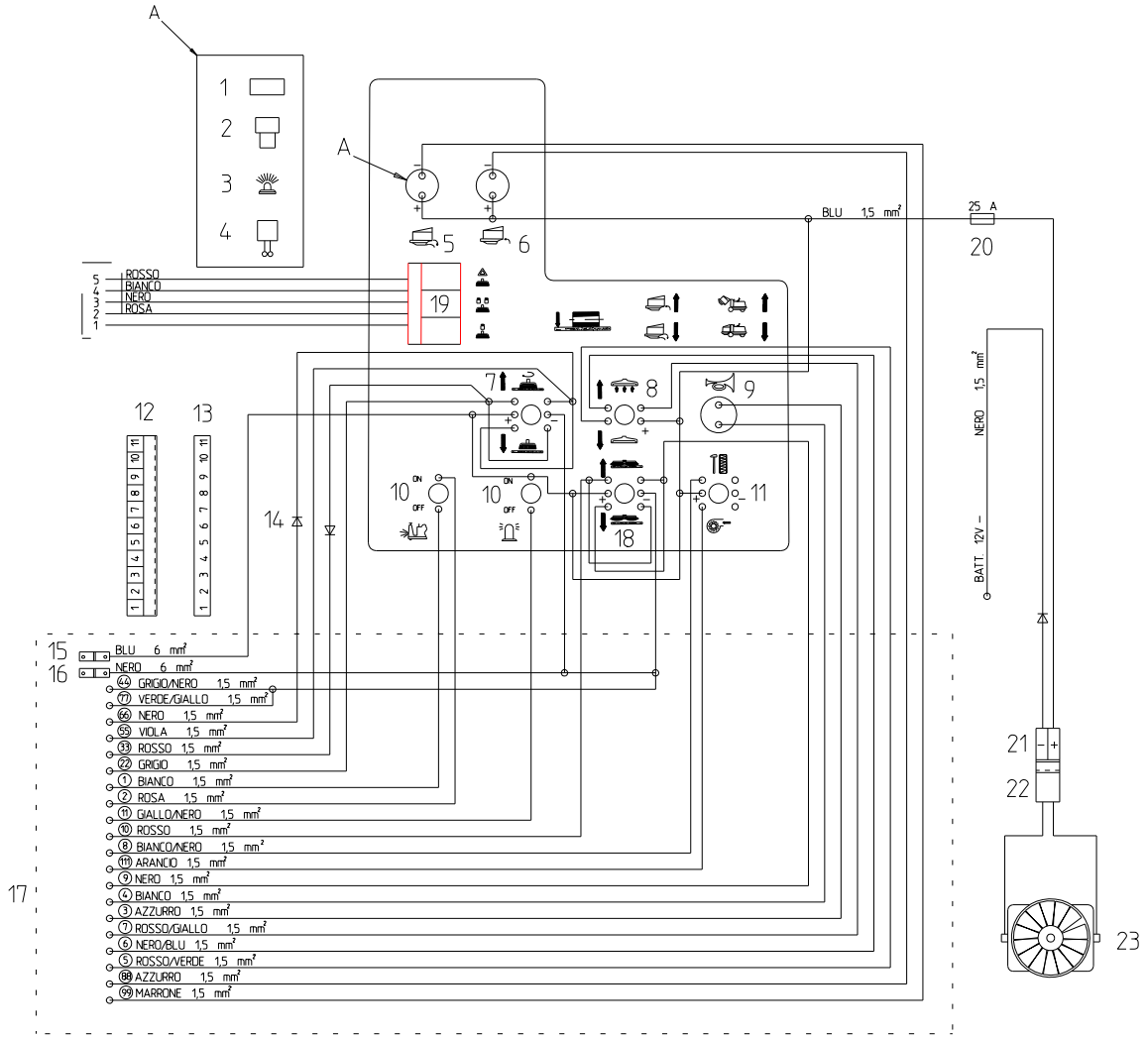
7.3 IMPIANTO ELETTRICO (BATTERIA)



N.Position	Code Num	Qta	Descrizione	Description	Description	Bezeichnung
115.12.001	PY756	1	CONNETTORE 11 POLI PORTA-MASCHIO	CONNECTOR	CONNEXION	STECKER
115.12.002	PY609	1	CONNETTORE NERO PER MOTORE ASPIRAZI	CONNECTION	CONNEXION	STECKER
115.12.003	PY608	1	CONNETTORE ROSSO PER MOTORE ASPIRAZ	CONNECTION	CONNEXION	STECKER
115.12.004	PY032	3	SPINA 50A	BATTERY CHARGE PLUG	CONNECTEUR	STECKER
115.12.005	PY745	2	FANALI ANTERIORI 36V PER I115SS	FRONT LIGHTS	FEUX	VORDERLEUCHTE
115.12.006	IN053	1	INTERRUTTORE A PULSANTE	PRESS SWITCH	INTERRUPT. A POUSSOIR	DRUCKKNOPFSCHALTER
115.12.007	IN002	1	INTERRUTTORE A CHIAVE	KEY SWITCH	INTERRUPTEUR A CLEF	SCHLUESSELSCHALTER
115.12.008	IN008	1	FRUTTO NORMALMENTE APERTO	NORMALLY OPEN CONTACT	CONTAT NORMAL.OUVERT	KONTAKT
115.12.009	PY727	1	INDICATORE STATO BATTERIA+CONTAORE	PILOT LIGHT	INDICATEUR	ANZEIGER
115.12.010	MI068	1	AVVISATORE ACUSTICO A DISCO 24V 1A	MOTOR-HORN	CLACSON	HUPE
115.12.011	IN020	2	MICRO INTERRUTTORE -	MICROSWITCH AM15039	MICRO INTERRUPTEUR	MIKROSCHALTER
115.12.012	MO5039	1	MOTORE ELETTRICO	ELECTRIC ENGINE	MOTEUR	ELEKTROMOTOR
115.12.013	MA039	1	MARTINETTO SOLLEVAMENTO PIATTO SPAZ	JACK	VERIN	HEBEBOCK
115.12.014	PY214	2	DIODO P 600G	DIODE	DIODE	DIODE
115.12.015	PY526	1	CONNETTORE MASCHIO 4 POLI	CONNECTOR	CONNECTEUR	STECKER
115.12.016	PY527	1	CONNETTORE FEMMINA 4 POLI	CONNECTOR	CONNECTEUR	STECKER
115.12.017	BT097	1	BATTERIA A CASSONE 36V 625Ah	BATTERY CHARGE PLUG	BATTERIE	BATTERIE
115.12.018	PY536	1	MANIGLIA PER SPINA SBE 160 A	HANDLE	POIGNEE	HANDGRIFF
115.12.019	PY535	2	SPINA SBE 160 A	BATTERY CHARGE PLUG	CONNECTEUR	STIFT
115.12.020	PY232	2	MICRO DISGIUNTORE (SALVAMOTORE)	OVERLOAD CUTOUT	MICRO	MIKROSCHALTER
115.12.021	PY205	3	TELERUTTORE MAC 15R/36	REMOTE CONTROL SWITCH	TELERUPTEUR	FERNSCHALTER
115.12.022	PY157	2	FUSIBILE LAMELLARE 100 A	FUSE	FUSIBLE	FLACHSICHERUNGSEINSAT
115.12.023	PY747	1	MOTORINO DI RAFFREDDAMENTO GRUPPO E	ENGINE	MOTEUR	MOTOR
115.12.024	PY299	5	CONNETTORE 2 POLI MASCHIO ATT FASTO	2-POLE CONNECTOR	CONNECTEUR	2-POLIGER KONTAKTSTIF
115.12.025	PY300	5	CONNETTORE 2 POLI FEMM ATT FASTON	2-POLE CONNECTOR	CONNECTEUR	2-POLIGE STECKERHUELS
115.12.026	PY5027	1	RELE	RELAY	RELAIS	RELAIS
115.12.027	PY5026	1	BASE PORTA RELE	RELAY SUPPORT	SUPPORT RELAIS	HALTER RELAIS
115.12.028	SL004	1	RELAY	RELAY	RELAIS	RELAIS
115.12.029	PY5025	1	RELE GENERALE DI POTENZA	RELAY	RELAIS	RELAIS
115.12.030	PY5028	5	SUPPORTO PER FUSIBILE M8X20	FUSE SUPPORT	SUPPORT FUSIBLE	SOCKEL
115.12.031	PY5023	1	FUSIBILE LAMELLARE 200A	LAMELLAR FUSE	FUSIBLE LAMELLAIRE	ZETTEL
115.12.032	MA038	1	MARTINETTO TRASLATORE/SOLL.SQUEEGEE	JACK	VERIN	HEBEBOCK
115.12.033	MA038	1	MARTINETTO TRASLATORE/SOLL.SQUEEGEE	JACK	VERIN	HEBEBOCK
115.12.034	MO379	3	MOTRIDUTTORE 800W 36V S2 60min	ENGINE	MOTEUR	MOTOR
115.12.035	CW231	1	CAVO MOTORIDUTTORI SPAZZOLE	CABLE	CÂBLE	KABEL
115.12.036	PY744	1	BUZZER RETROMARCIA 36V	REVERSE BUZZER	BUZZER	WARNSIGNAL
115.12.037	PY418	1	LAMPEGGIANTE FLASH1 36V	BLINKING	GYROPHARE	BLINKLEUCHTE
115.12.038	MO181	2	MOTORE ASPIRAZIONE 36V	36V VACUUM MOTOR	MOTEUR ASPIRATION 36V	SAUGMOTOR
115.12.039	KIT636	1	KIT CONNETTORE STAGNO 2 VIE FEMMINA	CONNECTOR	CONNECTEUR	STECKER
115.12.040	KIT635	1	KIT CONNETTORE STAGNO 2 VIE MASCHIO	CONNECTOR	CONNECTEUR	STECKER
115.12.041	GL018	1	GALLEGGIANTE PER SMILE	FLOAT	FLOTTEUR	SCHWIMMER
115.12.042	PY761	1	DIODO 0233 INDIA 200HFR40PSV 9E08	DIODE	DIODE	DIODE

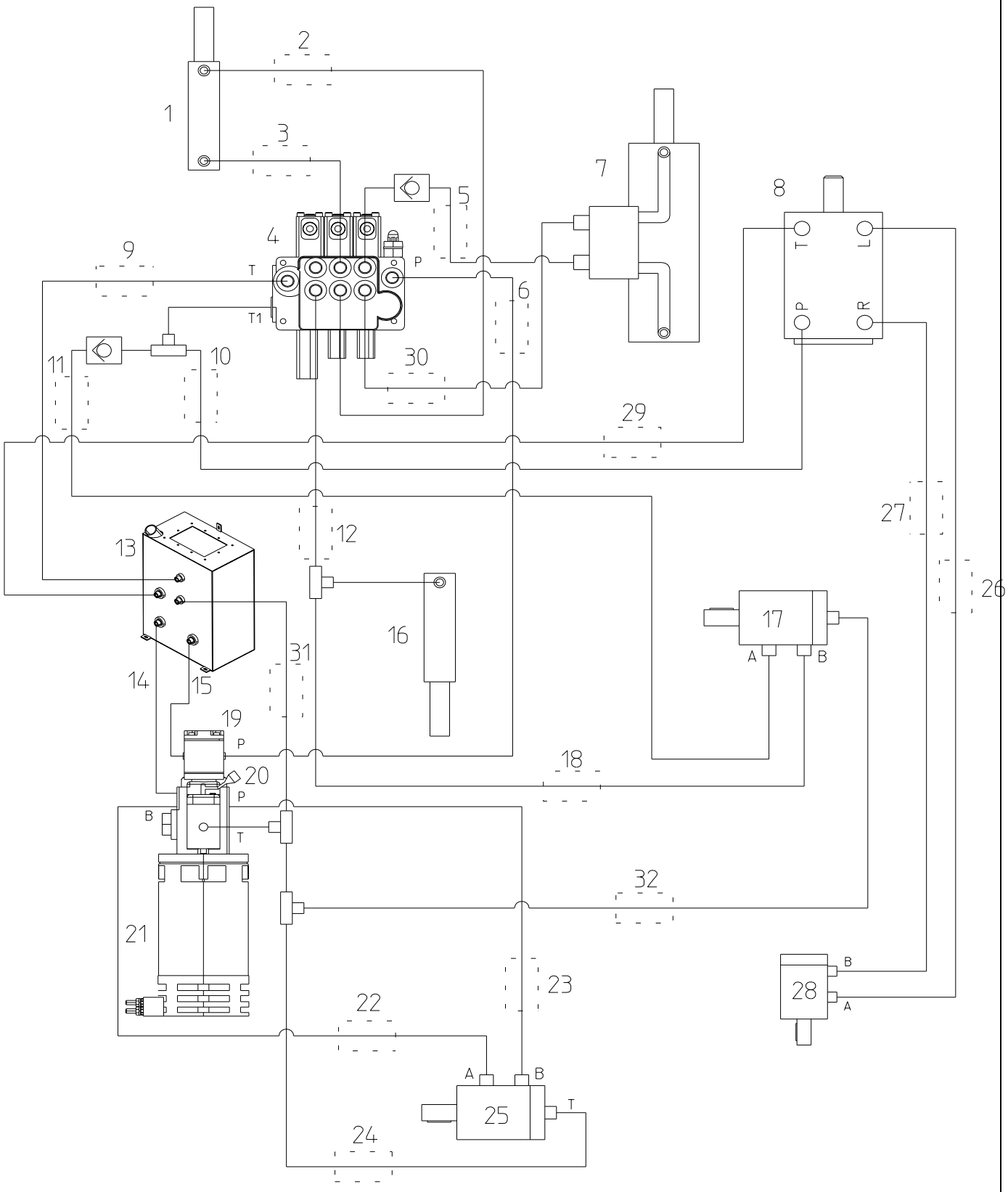


N.Position	Code Num	Qta	Descrizione	Description	Description	Bezeichnung
115.13.001	MO386	2	RIDUTTORE TIPO NMRV/030 MOTOVARIO	RECUCTION GEAR	RIDUCTEUR	UNTERSETZUNGSGETRIEB
115.13.002	MO387	2	MOTORE ELETTRICO PER RIDUTTORE MOTO	ELECTRIC ENGINE	MOTEUR	ELEKTROMOTOR
115.13.003	PY299	4	CONNETTORE 2 POLI MASCHIO ATT FASTO	2-POLE CONNECTOR	CONNECTEUR	2-POLIGER KONTAKTSTIF
115.13.004	PY300	4	CONNETTORE 2 POLI FEMM ATT FASTON	2-POLE CONNECTOR	CONNECTEUR	2-POLIGE STECKERHUELS
115.13.005	MO5038	1	MOTORE VENTOLA ASPIRAZIONE	SUCTION FAN ENGINE	MOTEUR	MOTOR
115.13.006	PY032	1	SPINA 50 A	TENSION PIN	CONNECTEUR	SPANNSTIFT
115.13.007	IN5005	1	MICRO	MICRO	MICRO	MICROSCHALTER
115.13.008	MO5036	1	MOTORE SCUOTIFILTRO 36V	36V ENGINE	MOTEUR	36V MOTOR
115.13.009	CW229	1	CAVO MOTORE SCUOTIFILTRO	CABLE	CÂBLE	KABEL
115.13.010	MA031	1	MARTINETTO SPOSTAMENTO PIATTO	SCREW-JACK	VERIN	HEBEBOCK
115.13.011	CW230	1	CAVO COMPONENTI CASSONE	CABLE	CÂBLE	KABEL



N.Position	Code Num	Qta	Descrizione	Description	Description	Bezeichnung
115.14.001	PY5067	2	PORTAVETRINO	GLASS SUPPORT	PORTEPETITVERRE	GLASHALTER
115.14.002	PY5065	2	BLOCCHETTO X SPIA	INDICATOR BLOCK	INDICATEUR	ANZEIGERSBLOCK
115.14.003	PY5068	2	LAMPADA 12V 3W	BULB 12V 3W	LAMPE	GLUEHBIRNE 12V 3W
115.14.004	PY5066	2	PORTALAMPADA	BULB SUPPORT	PORTELAMPE	GLUEHBIRNEHALTER
115.14.005	PY749	1	VETRINO NEUTRO VERDE	GREEN GLASS	VERRE VERT	GRUENES GLAS
115.14.006	PY748	1	VETRINO NEUTRO ROSSO	RED GLASS	VERRE ROUGE	ROTES GLAS
115.14.007	IN063	1	INTERRUTTORE A SCATTO 6 CONTATTI	SWITCH	INTERRUPTEUR	FEDERSCHALTER
115.14.008	IN005	1	INTERRUTTORE A SCATTO 4 CONTATTI	SNAP SWITCH	INTERRUPTEUR A RESSOR	FEDERSCHALTER
115.14.009	IN053	1	INTERRUTTORE A PULSANTE	PRESS SWITCH	INTERRUPT. A POUSSOIR	DRUCKKNOPFSCHALTER
115.14.010	IN022	2	INTERRUTTORE A SCATTO	SNAP SWITCH	INTERRUPTEUR A RESSOR	FEDERSCHALTER
115.14.011	IN016	1	INTERRUTTORE A SCATTO + PULSANTE	SNAP SWITCH+PUSH BUTT	INTERRUPTEUR A RESSOR	FEDERSCHALTER
115.14.012	PY755	1	CONNETTORE 11 POLI PORTA-FEMMINA	CONNECTOR	CONNECTEUR	STECKER
115.14.013	PY756	1	CONNETTORE 11 POLI PORTA-MASCHIO	CONNECTOR	CONNECTEUR	STECKER
115.14.014	PY214	3	DIODO P 600G	DIODE	DIODE	DIODE
115.14.015	PY608	1	CONNETTORE ROSSO PER MOTORE ASPIRAZ	CONNECTION	CONNEXION	STECKER
115.14.016	PY609	1	CONNETTORE NERO PER MOTORE ASPIRAZI	CONNECTION	CONNEXION	STECKER
115.14.017	CW228	1	CAVO PLANCIA PER I115SS	CABLE	CÂBLE	KABEò
115.14.018	IN021	1	INTERUTTORE A PULSANTE 2 POSIZIONI	PRESS SWITCH	INTERRUPT. A POUSSOIR	DRUCKKNOPFSCHALTER
115.14.019	PY760	1	AMPEROMETRO CONTROLLO PRESSIONE SPAZ.	AMPEROMETER	AMPE'REME'TRE	AMPEREMETER
115.14.020	PY5117	1	FUSIBILE 25A	FUSE	FUSIBLE	FLACHSICHERUNGSEINSAT
115.14.021	PY300	1	CONNETTORE 2 POLI FEMM ATT FASTON	2-POLE CONNECTOR	CONNECTEUR	2-POLIGE STECKERHUELS
115.14.022	PY299	1	CONNETTORE 2 POLI MASCHIO ATT FASTON	2-POLE CONNECTOR	CONNECTEUR	2-POLIGER KONTAKTSTIF
115.14.023	PW5013	1	ELETTROVENTOLA PER RAFFREDDAMENTO MOT	SOLENOID VALUE	ELECTROVANNE	ELEKTROGEBLAESE

7.4 IMPIANTO IDRAULICO (BATTERIA)



N.Position	Code Num	Qta	Descrizione	Description	Description	Bezeichnung
115.15.001	MA5019	1	CILINDRO RUOTA STERZANTE	JACK	COEUR	HEBEBOCK
115.15.002	TU121	1	TUBO R1 1/4 F90 - F90BASSA L=2450	PIPE	TUYAU	ROHR
115.15.003	TU122	1	TUBO R1 1/4 F90 - F90 L=2550	PIPE	TUYAU	ROHR
115.15.004	DB5008	1	DISTRIBUTORE CON 3 LEVE	DISTRIBUTOR	DISTRIBUTEUR	VERTEILER
115.15.005	TU123	1	TUBO R1 1/4 F45 - F90 L=550	PIPE	TUYAU	ROHR
115.15.006	TU114	1	TUBO R1 3/8 FD - OCCHIO L=480	PIPE	TUYAU	ROHR
115.15.007	MA5017	1	CILINDRO SOLLEVAMENTO CASSONE	JACK	COEUR	HEBEBOCK
115.15.008	AI5000	1	IDROGUIDA -PSBA5/15/X-	HYDRO-DRIVE	DIRECTION ASSISTEE	HYDROLENKER
115.15.009	TU109	1	TUBO R1 3/8 F90BASSA - F90 L=340	PIPE	TUYAU	ROHR
115.15.010	TU115	1	TUBO R1 3/8 FD - F90BASSA L=1450	PIPE	TUYAU	ROHR
115.15.011	TU113	1	TUBO R1 3/8 F90 - F90 L=1050	PIPE	TUYAU	ROHR
115.15.012	TU111	1	TUBO R1 3/8 FD - F90 L=470	PIPE	TUYAU	ROHR
115.15.013	SB186	1	SERBATOIO OLIO IDRAULICO	TANK	RESERVOIR	TANK
115.15.014	TU106	1	TUBO R1 1/2 FD - F90 L=600	PIPE	TUYAU	ROHR
115.15.015	TU107	1	TUBO R1 1/2 F90 - F90 L=440	PIPE	TUYAU	ROHR
115.15.016	MA037	1	MARTINETTO SOLLEVAMENTO SPAZZ.CENTR	JACK	VERIN	HEBEBOCK
115.15.017	MO162	1	MOTORE SPAZ.CENTR. -BGM32C16-	MAIN BRUSH HYDRAULIC	MOTEUR HYDR. BROSSE	HYDR. MOTOR
115.15.018	TU112	1	TUBO R1 3/8 F90 - F90 L=740	PIPE	TUYAU	ROHR
115.15.019	PO5011	1	POMPA A INGRANAGGI	PUMP	POMPE	ZAHNRADPUMPE
115.15.020	PO5010	1	POMPA A PISTONI	PUMP	POMPE	KOLBENPUMPE
115.15.021	MO5039	1	MOTORE ELETTRICO	ELECTRIC ENGINE	MOTEUR	ELEKTROPUMPE
115.15.022	TU108	1	TUBO R1 1/2 FD - F90 L=2200	PIPE	TUYAU	ROHR
115.15.023	TU108	1	TUBO R1 1/2 FD - F90 L=2200	PIPE	TUYAU	ROHR
115.15.024	TU119	1	TUBO R1 1/4 F90 - FD L=2350	PIPE	TUYAU	ROHR
115.15.025	MO390	1	MOTORE TRAZIONE PER I115SS	TRACTION ENGINE	MOTEUR	ANTRIEBSMOTOR
115.15.026	TU118	1	TUBO R1 1/4 F90 - OCCHIO L=2740	PIPE	TUYAU	ROHR
115.15.027	TU117	1	TUBO R1 1/4 F90BASSA - OCCHIO L=274	PIPE	TUYAU	ROHR
115.15.028	MO389	1	MOTORE CATENA STERZO OMP80	ENGINE	MOTEUR	MOTOR
115.15.029	TU116	1	TUBO R1 3/8 F90 - F90 L=1500	PIPE	TUYAU	ROHR
115.15.030	TU124	1	TUBO R1 ¼ F90 L=670	PIPE	TUYAU	ROHR
115.15.031	TU110	1	TUBO R1 1 / 2 F90 BASSA	PIPE	TUYAU	ROHR
115.15.032	TU120	1	TUBO R1 1 / 2 F90	PIPE	TUYAU	ROHR

Mat. n.
Serial no. _____
Nr. de serie

Data di spedizione
Shipment date _____
Date de spedition

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ING. O. FIORENTINI s.r.l.

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